

Bid Bulletin No. 2 February 2, 2020

Public Bidding No. 21-005-8

CONSTRUCTION OF COMMAND CENTER BUILDING FOR THE OFFICE FOR TRANSPORTATION SECURITY

Issued pursuant to Sec. 22.5 of the IRR of R.A. 9184 to clarify and/or amend certain provisions in the Bidding Documents issued for this project, considering the issues raised and clarifications made by prospective bidders during the **Pre-Bid Conference** held on **26 January 2021**, likewise, respond to bidders' written queries received within the prescriptive period for filing.

A. AMENDMENTS/INCLUSIONS

I. SECTION III. BID DATA SHEET

BASES FOR AMENDMENT/ INCLUSION
 To amend the required PCAB License. To clarify, the required PCAB Registration for the project is Medium A, Category B, for better understanding.
 To include the requirements under the provision. To clarify, bidders shall submit documents as part of the Post Qualification.

- 8. For Video Management System (Technical Specifications Page 38 Row 9), Bidder must certify to have perpetual license on the offered VMS
- 9. For Cabling System for CCTV (Technical Specifications Page 40 Row 8), bidder must submit manufacturer's certification that the offered cables covers 15-years warranty
- 10. For Cabling (Technical Specifications Page
 45 Row 8), bidder must submit
 manufacturer's certification that the
 offered cables covers 15-years warranty
- 11. For Structured Cabling System (Technical Specifications Page 52 Row 4), bidder must submit manufacturer's certification that the offered cables covers 15-years warranty
- 12. For Operator Workstation Consoles
 (Technical Specifications Page 51 Row 11),
 bidder must submit manufacturer's
 certification that the offered operator's
 workstation consoles cover 10-years
 warranty
- 13. Bidder must submit certifications to justify compliance with the requirements under Page 54-55 Item No. 8 Project Requirements and Page 55-56 General Requirements

XXX

Clause 16 Page 21

XXX

Each bidder shall submit one (1) original and two (2) copies of the first and second components of its bid.

The duplicates-i.e. copy 1, must include the same documents as that of the original set of documens. In case, however, a bidder opts to submit cash as bid security, copy 1 need not contain photocopies of the same.

 To include the provision in the requirements. The bidder shall submit one (1) original and two (2) copies of the first and second components of its bid.

XXX

II. SECTION VI. SPECIFICATIONS

AMENDMENTS / INCLUSIONS	BASES FOR AMENDMENT/ INCLUSION
Supply, Delivery, Installation and Commissioning of Auxiliaries for the OTS Command and Control Communications Center MINIMUM REQUIREMENTS: XXX 1. CCTV SYSTEM - Processor: Intel Core i7 3.6GHz; - Memory: 16GB upgradable to 32GB; - Storage/HD: 256GB SSD +1TB, SATA, HDD upgradable to 2TB; - Graphics Video Processor: 2GB with 3 Output ports; - Network Interface: 10/100/1000 Ethernet; - OS: Windows 10 Professional 64bit; - Display screen: LED Monitor 24" full HD; - Must come with optical mouse with pad and standard full-size keyboard with numeric keypad.	f
Page 37 XXX B.Network Video Recorder - XXX - Must have at least Windows 7 or better Operating System the latest Windows Server Operating System - XXX XXX	To amend requirement for the Operating System. Please use Appendix "1" for Compliance with the Technical Specification Form.

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Page No. 54

XXX

SLAT-Wall Operator's console

- <u>Must be custom made by an ISO</u> 9001:2008 command center console manufacturer;
- <u>Must be ergonomic designed that can</u> <u>deliver optimized comfort to the user in a</u> <u>mission critical environment;</u>
- Must provide a maintenance free ventilation to help avoid overheating of equipment;
- Must be modular system constructed;
- <u>Must have 2 semi-concealed cable</u> <u>raceways separating electrical power from</u> <u>data and communications cables;</u>
- Must have electrical and data outlet panels;
- Must have a retractable and fixed equipment shelf;
- Must be made of maximum 2mm thick cold rolled steel sheet and maximum 5mm thick hot rolled sheet with precision aluminum extrusions for durability and strength; and
- Must have detailed technical drawings of the command center workstation consoles.

CELLE Chair

- <u>Must be made by an ISO 9001-2008</u> manufacturer
- Must be ergonomically designed that supports lower back, comfort and good posture to operator in a 24/7 environment;
- Must have a backrest synchronized tilt mechanism;
- Must be sliding and height adjustable arm rest; and
- Must have adjustable height mechanism

8. OTHER PROJECT REQUIREMENTS

XXX

 To include the auxiliary components in Section VI. Specification. Please use Appendix "1" for Compliance with the Technical Specification Form.

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III. SECTION IX. CHECKLIST OF TECHNICAL AND FINANCIAL DOCUMENT & BIDDING FORMS

AMENDMENTS / INCLUSIONS	BASES FOR AMENDMENT/ INCLUSION
Page 64 Bid Securing Declaration Form XXX BID SECURING DECLARATION Project Identification No. PB No. 21-005-8 To: [Insert name and address of the Procuring Entity] Office of Transportation Security Thru: Chairperson Bids and Awards Committee VIII Procurement Service XXX	To clarify the addressee for the Bid Securing Declaration for better understanding. To clarify that the Head of the Procuring Entity is the Office of the Transportation Security. The Procurement Service is the procuring agent for the project. Please use Appendix "2" for Bid Securing Declaration Form.

B. CLARIFICATIONS

The Department of Budget and Management – Procurement Service – Bids and Awards Committee VIII hereby clarifies bidders' concerns and queries.

ITEM	ISSUE / REQUEST	CLARIFICATION / RESOLUTION			
	CLARIFICATION RAISED DURING PRE-BID CONFERENCE ¹				
1	Annex Digital Corp (ADI) What will be the acceptable forms of Performance Security since the new Bidding Document did not identify the forms to be used?	Please be guided of the General Conditions of the Contract (GCC) Clause No. 5: Performance Security. In connection to the same, please refers to the requirement on Section 39 of the IRR of RA 9184.			
	R.M. MANGUBAT CONSTRUCTION ²				
2	Do you have any template for the Detailed Estimate for the Financial Document?	There is no template for the Detailed Estimate for the Financial Document.			

¹ Issues raised during Pre-Bid Conference.

² Written Clarification submitted on January 27, 2021.

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3	Concerning PCAB Category – Your requirement size range is Medium B License Category A which is the allowable range of contract costs is up to Php 300M. The project approved budget contract is P88,644,194.23 which will fall in category Medium A License Category B with up to Php 150M allowable range of contract costs.		The appropriate PCAB license for the project's size is Medium A, License Category B in accordance with PCAB Board Resolution No. 201 series of 2017. Please refer to amendment part of the Bid Bulletin.
	ANNEX DIGITAL, I	NC.	3
4	BDS ITB Clause 10.5 – "The minimum major equipment requirements, proof of ownership/leased/under purchase agreement" – Is this to be submitted as part of the Technical component of the bidding documents?	•	Yes.
5	BDS ITB Clause 21 – "List of additional contract documents relevant to the subject" – May we know if it is connected with POW/page 54? Are those documents to be submitted upon NTP?	•	Those are 2 different sets of documents for submission. Documents listed in ITB Clause 21 refer to the schedule for the whole project which must be submitted within 10 days upon receipt of NOA (Section 37.2 of 2016 Implementing Rules and Regulations of RA 9184) Those listed in page 54 refers to the schedule for the Auxiliaries and to be submitted within 2 weeks upon receipt of the Notice to Proceed.
6	PCAB License (Joint PCAB) — In case of a Joint Venture, kindly confirm if the PCAB requirement can be complied by any member of the joint venture and therefore would not anymore require a joint PCAB to be submitted?	•	If joining through a joint venture, please refer to ITB 10.3 and the rules under Sec. 38 of RA 4566 and PCAB BR No. 365 series of 2014. The minimum PCAB registration required for this project is Medium A, Category B .
	This is due to the requirement of PCAB that similar specialty has to be available for both contractor prior to any Joint PCAB to be approved and issued.	•	No. The bidders should have submitted a PCAB license that is VALID as of the date of the deadline for the submission of bids and bid opening. Please refer to GPPB NPM 104-2016 .

 $^{^{\}rm 3}$ Written clarification submitted on January 28, 2021.

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	Given that the project requires strict specialty requirements where usually a civil works contractor usually does not have the experience for auxiliary as required and vice versa, this would be a difficult if not an impossible requirement to comply. Further, this would also defeat the purpose of a joint venture where both expertise should be required. Also, if in case the PCAB license is set to expire in any one of the bidder, would a proof of renewal of PCAB such as OR or receiving copy of application be accepted? This is due to the Pandemic situation that		
	causes delay in the release of renewal.		
7	Special Conditions of Contract Clause 13 – Advance Payment – Why no advance payment or mobilization fees given that this bid is under Infra?	•	No Advance Payment or mobilization fees are given, extended or paid in accordance with DOTr Memorandum dated July 10, 2018 as attached. Please see Appendix "3" for better understanding.
	Terms of Reference, VI. Qualification requirement under qualification of contractor number 3	•	Yes
8	At least two letters/certification from current previous clients for satisfactory delivery of goods/services		
	- Is this to be submitted during post- qualification?		
	TOR minimum requirements		
9	CCTV System A. IP Surveillance System must have single brand for the following components: IP Cameras, Network Video Recorder and Video Management System page 34. - Can the requirement for a single brand for VMS, NVR and Camera be considered to be omitted since this contradicts ONVIF requirement stated in the camera requirements and "openness" of the Surveillance system.		We agree, provided the system is ONVIF compliant to ensure interoperability, compatibility and security of the proposed system. In addition, the brand manufacturer must not be suspended or banned for use in any country and is presently a member of the Open Network Video Industry Forum (ONVIF). Bidder must provide certification from the manufacturer to this effect.

- Typically it's the VMS and NVR that is usually on the similar platform. By taking out this requirement, this would allow for a better option for camera brands available as this does not lock the system to a single manufacturer.
- Also, this requirement appears in the Access Control System on page 41 and is also recommended to be taken out?

 We agree to delete this statement "Must have a single brand for the following components: IP Cameras, NVR and VMS" under Access Control System page 41 of the Bidding Documents

TOR Minimum requirements

6MP Indoor Camera with 1920x1080p resolution

 May we know if a true 2MP camera or better can comply with this requirement? Given the actual resolution calls for 1920x1080p

resolution. We recommend replacing the camera resolution from "1920x1080p" to "3072x2048p" in pages 34, 35, and 36.

We agree. The required 6MP camera

must have at least 3072 x 2048p

Must have at least a 3-9mm varifocal lens – Can a 3.6mm-10mm be acceptable given that varifocal range is better?

Varifocals have a "to and from" range. They depend largely on the use or application of the camera and the range gives the user its flexibility during installation. We agree to amend the terms to read as "Lenses that have at least 78° - 100° filed of surveillance view varifocal lens with detailed field of vision and zoom level to show better viewing.

Must have an operating temperature of at least 0-55*C and operating humidity of 0-95% non-condensing— Can 0-50*C & 10-100% acceptable? (greater humidity is in relation to the Philippine actual temperature and humidity conditions.

The concept of **zero** percent relative **humidity** — air devoid of water vapor is impossible. Water vapor is always present in the air, even if only in minute quantities. Research from the Building Science Corporation found that humidity of 70% higher adjacent to a surface can cause serious damage to the property. The Health and Safety Executive recommends that relative humidity indoors should be maintained at 40-70%, while other experts recommend that the range should be 30-60%. Most people, however, are most comfortable if the **humidity** levels are between

10

			30%-50%. So while less is more, too dry isn't that much better. In the Philippines, the lowest recorded relative humidity is about 67% while the highest is about 83% bringing an average relative humidity of 75%. 0-95%or 10-100% relative humidity are acceptable.
11	TOR Minimum requirements 6MP Outdoor camera Must have at least a 3-9mm varifocal lens - Can a 3.5mm-10mm be acceptable? Must have an operating temperature of at least 0-55*C and operating humidity of 0-95% non-condensing - Can 0-50*C & 10-100% acceptable? (greater humidity the better) This is in relation to the Philippine actual temperature and humidity conditions.	•	Varifocals have a "to and from" range. They depend largely on the use or application of the camera and the range gives the user its flexibility during installation. We agree to amend the terms to read as "Lenses that have at least 78° - 100° filed of surveillance view varifocal lens with detailed field of vision and zoom level to show better viewing. Please refer to item 10.
12	TOR Minimum requirements 6MP Outdoor Bullet Camera Must have at least a 3-9mm varifocal lens - Can a 3.5mm-10mm be acceptable? Must have an operating temperature of at least 0-55*C and operating humidity of 0-95% noncondensing - Can 0-50*C & 10-100% acceptable? (greater humidity the better) This is in relation to the Philippine actual temperature and humidity conditions.	•	Varifocals have a "to and from" range. They depend largely on the use or application of the camera and the range gives the user its flexibility during installation. We agree to amend the terms to read as "Lenses that have at least 78° - 100° filed of surveillance view varifocal lens with detailed field of vision and zoom level to show better viewing. Refer to Items 10 and 11 above
13	TOR Minimum requirements Video Management System (VMS) Must be capable of supporting up to 256 camera channels in one server/NVR Kindly clarify if this requirement of 256 cameras in one server is the VMS Management Server?	•	This is for the VMS server as part of OTS' future-proofing in network

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	- This would also allow for high availability and better management of the system if NVR's only carry up to 128 channels per one server and the VMS server to almost unlimited channels?		security infrastructure.
14	TOR Minimum requirements Access Control System. Must have a single brand for the following components: IP cameras, Network Video Recorder and Video Management System — Conflicts with ROW 5, 8 & 9 of page 38	•	We agree to delete this statement "Must have a single brand for the following components: IP Cameras, NVR and VMS" under Access Control System page 41 of the Bidding Documents
15	Access Control System Panel. Must have a minimum of 7 inputs per controller and up to 40 expansion inputs – Can an Expansion Inputs of 32 only comply, given that this is the industry standard?	•	We maintain the required specifications to accommodate future integration.
16	Submission of Bid – May we request for an extension on bid submission of at least two (2) weeks?	•	No extension on bid submission will be given considering the lack of justifiable reasons for the requested extension. We maintain the project's schedules in order to comply with the strict instruction of the SOTr on project implementation timelines.
	ISM BUILDERS ⁴		
17	In related to Covid 19 Virus, are we going to provide SWAB test result of every worker/ staff to be assigned in this Project? What are the other requirements?	•	Workers/Staff must present before reporting to OTS rapid test results valid only for one (1) day. A Contact tracing form or the Traze Contact Tracing App will be filled out.
18	Please confirm if the contractor are allowed to build temporary office & temporary workers Barrack inside the vicinity area	•	Workers/Staff must present before reporting to OTS rapid test results valid only for one (1) day. A Contact tracing form or the Traze

⁴ Written clarification submitted on January 29, 2021.

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		Т	
			Contact Tracing App will be filled out.
19	Please confirm location of our staging Area in the location Plan	•	The staging area will be beside the access gate in front of the OTS Main Building
20	In the Location plan (A-1) it indicate the part of the existing structure to be demolished, please confirm if it is included in the contract of the Contractor. If yes please provided additional details on the restoration and please confirm if it is included in the 240 Calendar Days?	•	Yes, demolition works is included in the project, no large restoration works is required except for finishing/polishing the areas damaged as a result of demolition. The project timeline of completion is still 240 cd.
21	Please provide plans indicating wall type to be used.	•	Use 6" CHB for exterior walls and 4" CHB for interior. Please refer to plans (sheet No. A2) for the schedule of wall finishes.
22	In the Structural Framing it used Wide Flange (I-Beam) for the column & Beams, for the exposed column & Beams are we going to cover it with concrete or Ficem board? If yes Please provide details.		All columns and beams shall be covered by aluminum cladding panel (ACP)
23	In the Bill of Quantity it indicates in the Architectural Finishes the 1600mm x 1200mm x 20mm thk aluminum composite panels, please clarify & confirm the thickness.		20mm thick ACP
24	In the Electrical plan (E-1) indicates 30KVA UPS with 20min standby battery, please confirm which to be used the 30min or 20min standby battery?		30mins
25	In the Materials specification (P-1) of Plumbing works it indicates the use of PVC Pipes to all Cold waterline? Can we used the PPR Instead for much better Quality?	•	Yes, but with no additional cost
26	Please Provide plans for the Fire Suppression.	•	This is part of the winning bidder's submission within 2-weeks after receipt of NTP.
27	During Pre-Bid Conference it was discuss the "No Mobilization or Cash Advance Payment" shall be given to the contractor for this Project. While In the Bid Documents, Section IV of General Conditions of Contract Item No. 13 states that "the Procuring entity shall, upon a written request of the Contractor which shall be submitted as a contract documents, make an advance payment to the contractor in the amount not exceeding fifteen percent (15%) of the total.	•	No Advance Payment or mobilization fees are given, extended or paid in accordance with DOTr Memorandum dated July 10, 2018 (attached).

INTELLIGENCE SECURITY & AUTOMATION ST	YST	TEMS, PHILS, INC. (ISASPH) ⁵
Do we need to conduct actual site inspection? If yes, may we request the schedule?	•	The project does not require site inspection certificate and the scheduled site inspection was last January 28-29, 2021 8am-5pm.
specified 12- & 240 days, please confirm.		The 240 cd project timelines refer to the whole project while the 120 cd is the winning bidder's submission of Project Management Plan for the auxiliaries within 2-weeks after receipt of NTP. (120 included in the 240)
In the area perimeter there is existing structure; do we need to include the demolition and restoration works?	•	Demolition works is included in the project, no large restoration works is required except for finishing/polishing the areas damaged as a result of demolition.
In the warranty, please confirm if the 15 or 20 years warranty applicable only for structure cabling system performance warranty?	•	The cabling system must be supported by at least 15-years of manufacturer's warranty as stated in pages 40 & 45 under Section VI-Specifications. For Structured cabling system, we amend to have the same warranty cover of at least 15-yrs.
For the recording server operating system please confirm if this must be Window Server 2016 OS not a Window 7-10 OS	•	Considering that the requirement is for the recording server, we amend the requirement from "Must have at least Windows 7 or better Operating System" to read as "Must have at least the latest Windows Server Operating System" (include in A)
For the workstation, please specify minimum specification	•	The workstation minimum specifications for the CCTV system are as follows:
		>Processor: Intel Core i7 3.6GHz; >Memory: 16GB upgradable to 32GB; > Storage/HD: 256GB SSD +1TB SATA, HDD upgradable to 2TB; > Graphics Video Processor: 2GB with 3 Output ports; > Network Interface: 10/100/1000 Ethernet; > OS: Windows 10 Professional 64bit; > Display screen: LED Monitor 24" full HD;
	Do we need to conduct actual site inspection? If yes, may we request the schedule? In the project timeline there are two schedule specified 12- & 240 days, please confirm. In the area perimeter there is existing structure; do we need to include the demolition and restoration works? In the warranty, please confirm if the 15 or 20 years warranty applicable only for structure cabling system performance warranty? For the recording server operating system please confirm if this must be Window Server 2016 OS not a Window 7-10 OS	In the project timeline there are two schedule specified 12- & 240 days, please confirm. In the area perimeter there is existing structure; do we need to include the demolition and restoration works? In the warranty, please confirm if the 15 or 20 years warranty applicable only for structure cabling system performance warranty? For the recording server operating system please confirm if this must be Window Server 2016 OS not a Window 7-10 OS For the workstation, please specify minimum

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	In the requirement VESDA & HSSD, do you	•	pad and standard full-size keyboard with numeric keypad. ** The workstation will be co-located at the building Chief Office. Yes, the terms VESDA (very early
34	accept similar brand technology but in mentioned in a different terminology?	1	smoke detection apparatus) and HSSD (high sensitivity smoke detection) are abbreviations that have become a generic name used in "smoke detection system". Equivalent brands are acceptable provided all other requirements set in the TOR are met.
	FACILITIES PROTECTION,	ENC	C. (FPI) ⁶
	On the bid documents, Section VI- Specifications, item number 8 providing the Other Project Requirements includes the following:		
35	- Bidder must supply, install and commission Video Wall System with Video Matrix for the OTS C4 Command Center Operations Area However, there are no provided technical specifications nor it is included in the Bill of Quantities. May we be clarified if it is included? If not may we request that above requirement be removed from the list of requirements.	•	There is no video wall system to be supplied and installed; however, provisions for cabling must be included as described in the drawings and structured cabling system.
36	Considering that the project is a building construction in nature and the qualifications of prospective bidders are limited to the construction industry and the DTI no longer allows special PCAB license for companies entering into joint venture without the similar PCAB license category. This then makes it impossible for a General Contractor to partner with a non PCAB company specializing on Auxiliary Systems. Therefore, we request that the following requirements be omitted.		If joining through joint venture, please refer to ITB 10.3 and the rules under Sec. 38 of RA 4566 and PCAB BR No. 365 series of 2014.
	- Bidder must have at least 5-years of experience in the Electronic Security Systems Industry, catering specifically on IP Surveillance, Access Control, Fire Alarm Detection and Command Center Video Wall Systems.	•	We retain these requirements.

 $^{^{\}rm 6}$ Written clarification submitted on January 29, 2021.

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	- Bidder must submit proof of experience in building out Video Wall systems by providing at least 3-reference projects. Video wall reference system must have a minimum of 6 x Large Format Display.			
37	We have already purchased the bid documents with the Official Receipt named under FPI and another company as we were planning to do a Joint Venture. May we request the BAC to allow that the same O.R. be an acceptable proof of purchase of the bid document.	Any of the party in the Joint Venture may purchase the Bidding Document.		
	2J45 CONSTRUCTION ⁷			
38	May we request for a soft copy thru a USB of the Bid Docs particularly the Plans when we secure the Bid Document today after paying the required fee of P9,000.00	The copy of the Bid Document including Plans/Design can be downloaded through PhilGEPS and Procurement Service website.		

All provisions of the bidding document that are affected by newly issued bidding documents templates are deemed modified / amended / revised.

By Rules, all other related provisions in the Bidding Documents correspondingly affected by these amendments are likewise deemed amended to conform to this Bid Bulletin.

Amendments made herein shall be considered an integral part of the Bidding Documents.

(SGD)
MR. PAUL ARMAND A. ESTRADA
Vice-Chairperson, BAC VIII

⁷ Written clarification submitted on January 29, 2021

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Technical Specifications

(To be included in the Technical Envelope)

Lot 1

: Construction of Airport Security Command Center

QUANTITY

: 1 lot

APPROVED BUDGET FOR THE CONTRACT

: P 88,644,194.23.

B-1.1. IP Surveillance System

- Must supply, install and commission an IP Surveillance System based on the provided equipment layout and BOQ
- Must include any and all equipment and/or accessories necessary to ensure completeness and proper operation of the system and must not rely solely on the provided layout and BOQ
- Must consist of at least the following: IP Cameras, Network Video Recorder, Video Management System and Network Switch
- Must fully integrate into a single platform with the Office for Transportation Security's Airport Checkpoint Surveillance System for ease of use and familiarity of the operators to the system and ensure homogenous and efficient command center operation

B-1.1.1 6MP Indoor Dome Camera

- Must have at least 6.0 MegaPixel CMOS sensor with at least 1920 x 1080p 3072x2048p resolution
- Must have a Wide Dynamic Range and Low Light Technology
- Must have built-in Infrared Illuminators
- Must be capable of at least up to 30 Frames per second
- Must have dynamic bandwidth management technology
- Must have built-in noise reduction technology
- Must have at least a 3-9mm varifocal

lens

- Must be capable of streaming video in H.264 and/or MJPEG
- Must have built-in Motion Detection
- Must have automatic Iris, Shutter, Day/Night, White Balance Control
- Must have built-in backlight compensation
- Must be ONVIF Profile S compliant
- Must use Power over Ethernet
- Must have an operating temperature of at least 0-55 deg. C and operating humidity of 0-95% non-condensing
- Must be UL and CE certified

B-1.1.2 6MP Outdoor Dome Camera

- Must have at least 6.0 MegaPixel CMOS sensor with at least 1920 x 1080p <u>3072x2048p</u> resolution
- Must have Wide Dynamic Range and Low Light Technology
- Must have built-in Infrared Illuminators
- Must be capable of at least up to 30 Frames per Second
- Must have dynamic bandwidth management technology
- Must have built-in noise reduction technology
- Must have at least a 3-9mm varifocal lens
- Must be capable of streaming video in

H.264 and/or MJPEG

- Must have built-in Motion Detection
- Must have automatic Iris, Shutter, Day/Night, White Balance control
- Must have built-in backlight compensation
- Must be ONVIF Profile S compliant
- Must use Power over Ethernet
- Must have an operating temperature of at least 0-55deg C and operating humidity of 0-95% non-condensing
- Must be UL and CE certified
- Must be rated for at least IP-66 for weather and dust resistance

B-1.1.3 6MP Outdoor Bullet Camera

- Must have at least 6.0 Mega Pixel CMOS sensor with at least 1920 x 1080p 3072x2048p resolution
- Must have Wide Dynamic Range and Low Light Technology
- Must have built-in Infrared Illuminators
- Must be capable of at least up to 30 Frames per second
- Must have dynamic bandwidth management technology
- Must have built-in noise reduction technology
- Must have at least a 3-9mm varifocal lens
- Must be capable of streaming video in

H.264 and/or MJPEG

- Must have built-in Motion Detection
- Must have automatic Iris, Shutter, Day/Night, White Balance control
- Must have built-in backlight compensation
- Must be ONVIF Profile S compliant
- Must use Power over Ethernet
- Must have an operating temperature ot at least 0-55deg C and operating humidity of 0-95% non-condensing
- Must be UL and CE certified
- Must be rated for at least IP-66 for weather and dust resistance

B-1.2. Network Video Recorder

- Must be of an enterprise-grade server system with built-in redundant systems such as power supplies, hard drives and network interfaces to reduce risk of system failure
- Must have storage capacity sizing for at least 30 days of continuous video recording (24/7) with all cameras recording at a minimum of 10FPS
- Must have redundant, hot-swappable power supplies
- Must have at least 2 x 1Gbit NIC port
- Must be rack mounted
- Must operate in 103 to 237VAC 50/60 Hz, auto-volt
- Must have at least the latest Windows

Server Operating System

- Must have built-in video output (ie. VGA or HDMI or DVI)
- Must have at least an Intel Xeon processor and 6GB or RAM
- Must be capable of recording up to 256Mbps of video streams
- Must have at least 12TB of recording capacity (RAID5)
- Must be of a rackmount form factor
- Must have an operating temperature of 10-35deg C and up to 80% operating humidity

B-1.3. Video Management System (VMS)

- Must be available as a software-only offering or hosted on OEM (VMS manufacturer branded) server/NVR
- Must be of an enterprise-grade Video Management System solution which can be monitored from a central monitoring station connected via WAN
- Must be scalable from a single client and server to hundreds of clients and servers and cameras
- Must be capable of combining multiple servers in one location, into a site
- Must have site-based or cluster-based configuration synchronization feature for ease of use and configuration (ie. Program one user in one server/NVR, all other server/NVR in the site receives the new setting)
- Must not require the use of any

management server

- Must be able to integrate with the Facial Recognition System directly
- Facial Recognition Integration must allow direct playback and identification (ie. Indicate name, date, location, etc) if a recognized subject in the FRS watch list
- Facial Recognition Integration must show a live list of identified and/or recognized subjects on a per camera basis, for easy reference to video feed
- Must support ONVIF compliant cameras
- Must be run as a Windows System Server so that user-intervention is not required to run the system
- Must support video analytics events from streaming video devices with video analytics features
- Must be capable of supporting up to 256 camera channels in one server/NVR
- Must be a perpetual license which is not tied to a camera or video streaming device's MAC address
- Must support unlimited number of clients and have active directory support
- Must be capable of searching alarm events, transaction events, and thumbnails
- Must be of a client/server architecture with no central video streaming server or central management server required
- Must feature built-in archiving and/or backup feature for saving of recordings

for investigative purposes to a different storage

- Must have dynamic bandwidth management feature
- Must not require proprietary recording hardware, multiplexers, video wall or encoder devices of the like for video recording or monitoring
- Must have export-able tamper-evident recording of video for evidence purposes
- Must be capable of setting a maximum video retention period for each video stream
- Must be capable of motion-based recording, alarm-based recording, and continuous-vide recording
- Must have audit trail and/or maintenance logs of system errors and events
- Must have built-in health view to display server/NVR/site health details such as CPU usage, available memory, bandwidth usage, active cameras and the like
- Must have dynamic recording function for high and low resolution recording for data aging feature
- Must have individual video stream recording parameters such as Frames per Second, Compression, Bitrate and resolution
- Must have username/password login requirement for security
- Must have maps feature wherein a device must be highlighted or called to attention, when a programmed alarm is

triggered

- Must be capable of importing and exporting client and server settings
- Must be able to view at least 20 tiles per window or monitor
- Must have collaboration features wherein live and/or recorded video can be sent to a colleague in real-time and what is seen on the sender's view is the same on the receiver's view
- Must have built-in video wall functionality to eliminate the use of external video matrix devices, encoders and decoders, multiplexers
- Must support apple and android mobile devices for mobile viewing
- Must be able to receive MJPEG and H.264 video compression streams
- Must be able to control PTZ IP cameras directly within the VMS or through a Computer-based Joystick (ie USB PTZ Joystick)
- Must be capable of displaying both live and playback view of the same camera, along with other cameras, in the same view
- Must have digital zooming capability on both live and playback view
- Must have guard tour feature for cycling multiple camera views
- Must be capable of drag-and-drop functionality of video feeds for ease of use
- Must have multiple levels of security access based on operator role and/or

privilege	
- Must support single seat or window administration	
- Must have bookmarking feature for recorded video for incident analysis	
B-1.4 Network Switch	
- Must have at least 60W for 8-Port or 360W for 24-Port of available POE Power	
- Must have at least 8 x RJ-45 or 24 x RJ- 45 100/1000 Mbit ports	
- Must support at least 1 x 1 Gbit SFP Fiber Transceiver modules and include transceiver modules as needed	
- Must accept 100-240VAC Power	
B-1.5 Cabling System for CCTV	
- Must be comprised of either copper (ie CAT6) and/or fiber cabling solution sourced from one manufacturer only	
- Must be UL listed cables and pipes	
- Must use appropriately sized power cables such as THHN/THWN/TF wire or Royal Cord for devices that require a separate power cable	
- Must be housed in conduit, wire-way or wire mold depending on location and installation requirement	
- Cables located outdoors must utilize IMC conduit to ensure safety and security of the cable going to the outdoor device	
- Cables and terminations must be tested, verified and certified to allow for	

manufacturer's warranty of the cabling system

- There must be no splices allowed for any copper cable transmitting data
- Must be supported by at least 15-years of manufacturer warranty
- Must utilize metal flexible conduit for outdoor under-canopy locations or liquid-tight conduit and fittings for outdoor weather-exposed locations to ensure safety and security of cables and its devices

B-2.0 Access Control System

- Must supply, install and commission on Access Control System based on the provided equipment layout and BOQ
- Must include any and all equipment and/or accessories necessary to ensure completeness and proper operation of the system and must not rely solely on the provided layout and BOQ
- Must consist of but not be limited to the following items: Access Control Panel, Card Reader, Biometric Fingerprint Reader, Access Control Management Software, Access Control Server & Database, Magnetic or Drop-bolt Lock, Door Contact Sensor, Emergency Break Glass Switch, Power Supply
- Must have a single brand for the following components: IP Cameras,
 Network Video Recorder, and Video
 Management System Must have a single brand for the following components: IP
 Cameras, NVR and VMS
- Must be of an enterprise-class system that is fully networked and allows realtime event monitoring and door control

with no geographical limit and capable of system partitioning to allow multiple buildings and/or locations in one centralized Access Control System	
B-2.1 Access Control Management Software	
- Must be windows-based compatible with at least Windows 10 or Windows Server 2012 R2	
- Must include Microsoft SQL Database System for even storage and a Data Server for event transaction posting	
- Must have real-time monitoring of Door Access events inclusive of valid and invalid events	
- Must have real time status monitoring of Door Access, Relays and other programmed interfaces through the Graphical Interface	
- Must be licensed with either a hardware security key of a soft-key that will control the number of simultaneous users logged in to the system but not limit the total number of Panels/Doors/Readers that is part of the system	
- Must support database or system partitioning to allow assignment of specific resources into multiple smaller system for entities or facilities such as field offices, buildings or areas	
 Must be capable of controlling doors in real time by unlocking, locking and holding unlocked door or multiple doors at the same time 	
- Must have dynamic graphical maps that overlay Access Control Devices on Facility Floor Map	

- Must store all event logs, information, history, etc. on a centralized SQL database for live and archived reporting of data
- Must be capable of automatically creating new database files when existing database is full capacity
- Must require a username and password to login and a password to shutdown (as the system shutdown may not be authorized)
- Must be able to create multiple operators with granular privileges (disable, create only, create and edit, view only) to ensure the integrity of the system from malicious intent
- Must be filly networkable through
 Ethernet and support other
 communication types such as serial and
 fiber optic
- Must have an audit trail of changes in the database to be able to track user related changes, event messages, deletions, additions to the system and this audit trail must not be user editable
- Must be capable of handling up to 7 facility codes per Controller
- Must support System-Wide Anti-Passback (ie user enter at any IN reader and leaves at any OUT reader) and Nested Anti-passback
- Must support assigned hard anti-pass back (ie user MUST enter at an IN reader and leave at an OUT reader before entering an IN reader again for specific areas)
- Must support importing and exporting data such as cardholders and access

groups

- Must be capable of operating in distributed mode such that all Door Access functionality will remain in continuous operation in the event of a network communication failure with the server or a server crash
- Must have First-In, First-Out event log feature to avoid memory overflow
- Must allow archiving and restoring of system data for backup/restore purposes
- Must have a Muster List feature to generate a list of all badge holders IN the building. This must include the location and time of the badge holder's last IN event
- Must support designating of reader types such as Anti-pass back, Time IN/OUT, Two-Person, Escorted, Allowed Duration and Normal IN/OUT
- Must support multiple access modes such as: Card only, Card + PIN, PIN only, Card # only, free access
- Must report door alarms such as door ajar, door forced open with settable delays
- Must be capable of searching for events based on system variables and searching for names
- Must have reporting features such as time & attendance, valid/invalid events, alarms, cardholders, operators, hardware, access groups, time schedules and system settings
- Must be capable of exporting reports to
- Must support multiple reader types

*	simultaneously such as Card only, Card + PIN, Pin, Barcode, Biometric and Stripe based readers	
B-2.2	Access Control System Panel	
-	Must hold at least 10,000 cards per panel	
_	Must have at least 16 reader capacity per panel	
-	Must support Anti-passback features as allowed by the System Software	
-	Must have a minimum of 7 inputs per Controller and up to 40 expansion inputs	
-	Must have a minimum of 4 relays per Controller and up to 40 expansion relays	
-	Must have on-board communication of either RS232/422/485 or Ethernet	
-	Must not require an intermediate device between reader and controller	~
-	Must be UL 294 compliant	
-	Must have at least 4-hour battery backup	
-	Must have CMOS battery for memory backup	
-	Must be able to power readers by 12VDC or 5VDC	
-	Must have upgradable firmware and filed-replaceable EEPROM	
-	Must have expandable memory for higher event and card count per Controller	
-	Must be enclosed in a metal casing with	

	key-lock	
B-2.3	Access Control Reader	
Inter	face	
-	Weigand	
Moui	nting	
-	surface mount, mini-mullion size	
-	Must be indoor and outdoor mountable with a minimum of IP-55 rating	
Color	•	
-	Must be colored black	
Tech	nology	
-	Must be of the 13.56MHz reader technology capable of reading iClass SE cards	
· -	Must be of a modern reader technology with capacity to read legacy RFID technology	
-	Must be powered either by 5V or 12VDC	
-	Must be UL (UL 294), CE, FIPS listed or compliant	
B-2.4	Access Control Accessories	
-	All hardware must be securely mounted in accordance to standard practice or manufacturer recommended installation specifications	
-	Must have the appropriate Door Access Control accessories such as Door Position Sensors (flush mount or surface mount, Locking hardware (Electromagnetic Locks or Drop-bolt Locks), Emergency Break Glass, and	

Request to Exit buttons with the appropriate mounting hardware

- All doors controlled must be installed with at least a 600Lbs electromagnetic lock for single-swing doors or a suitable equivalent drop-bolt lock for doubleswing doors
- All doors controlled must be installed with an Emergency Break Glass switch to facilitate free egress during emergencies (except for specified areas)
- All doors must be equipped with its own localized power supply with back-up battery to ensure security of the controlled door even during power outage

B-2.5 Cabling

- Must be comprised of either copper (ie CAT6) and/or fiber cabling solution sourced from manufacturer only
- Must be UL listed cables and pipes
- Must use appropriately sized power cables such as THHN/THWN/TF wire or Royal Cord for devices that require a separate power cable
- Must be housed in conduit, wire-way or wire mold depending on location and installation requirement
- Cables located outdoors must utilize IMC conduit to ensure safety and security of the cable going to the outdoor device
- Cables and terminations must be tested, verified and certified to allow for manufacturer's warranty of the cabling system

There must be no splices allowed for any copper cable transmitting data Must be supported by at least 15-years of manufacturer warranty Must utilize metal flexible conduit for outdoor under-canopy location or liquid-tight conduit and fittings for outdoor weather-exposed locations to ensure safety and security of cables and its devices **B-3.0 Fire Alarm Detection System B-3.1 Fire Alarm Panel** Must be of an Analog Addressable Fire Alarm Control Panel (FACP) that is scalable by adding loops and/or interconnecting multiple FACP to function as one big system Must have built-in Notification Appliance Circuits (NAC), Signaling Line Circuits (SLC), relays, power supplies Must have at least one Signaling Line Circuit (SLC) which can support 254 Addressable points Must support up to at least 500 addressable points per Fire Alarm **Control Panel** Must have at least two built-in **Notification Appliance Circuits capable** of providing 24V, 4 Amps of power in total for devices such as bells, horns, and strobes Must have a built-in keypad for onpanel programming and/or control

- Must gave at least the following buttons for performing key Fire Alarm Panel functions such as Drill Test, Panel Reset, Silence Alarm, and Acknowledge Alarm
- Must be programmable via both built-in keypad and laptop based programming via Ethernet connectivity
- Must have at least three built-in relays for triggering alarms and/or other integration functions
- Must have a built-in power transformer suitable for 220-240VAC line input
- Must be equipped with batteries capable of providing standby power for at least 24-hours and an alarm time of at least 5minutes
- Must be UL listed
- Must be housed in a metal cabinet with lockable enclosure
- Must be wall mounted

B-3.2 Heat Detector

- Must be of an Analog Addressable Heat Detector directly compatible with the Analog Addressable FACP
- Must integrate directly to the FACP Single Line Circuit
- Must have settable rotary switch for device addressing
- Must have indicator LED to notify power and communication with the FACP panel and also indicate when it is an alarm condition
- Must be of modular design wherein the detector is attached to a base for ease of

installation and maintenance Must have selectable beat alarm threshold from at least 60degC to 90degC Must have rate-of-rise feature for alarm threshold Must be UL listed Must be ceiling mounted B-3.3 Smoke Detector Must be of an Analog Addressable Smoke Detector directly compatible with the Analog Addressable FACP Must integrate directly to the FACP Single Line Circuit Must have settable rotary switch for device addressing Must have indicator LED to notify power and communication with the FACP panel and also indicate when it is an alarm condition Must be of modular design wherein the detector is attached to a base for ease of installation and maintenance Must be of a photoelectric type for detecting smoke particles in the air Must have programmable sensitivity setting from 2%/ft to 3.3%/ft of obscurity Must be UL listed Must be ceiling mounted B-3.4 Input Monitor Must be of an Analog Addressable Input		
threshold from at least 60degC to 90degC Must have rate-of-rise feature for alarm threshold Must be UL listed Must be ceiling mounted B-3.3 Smoke Detector Must be of an Analog Addressable Smoke Detector directly compatible with the Analog Addressable FACP Must integrate directly to the FACP Single Line Circuit Must have settable rotary switch for device addressing Must have indicator LED to notify power and communication with the FACP panel and also indicate when it is an alarm condition Must be of modular design wherein the detector is attached to a base for ease of installation and maintenance Must be of a photoelectric type for detecting smoke particles in the air Must have programmable sensitivity setting from 2%/ft to 3.3%/ft of obscurity Must be UL listed Must be ceiling mounted B-3.4 Input Monitor	installation and maintenance	
threshold Must be UL listed Must be ceiling mounted B-3.3 Smoke Detector Must be of an Analog Addressable Smoke Detector directly compatible with the Analog Addressable FACP Must integrate directly to the FACP Single Line Circuit Must have settable rotary switch for device addressing Must have indicator LED to notify power and communication with the FACP panel and also indicate when it is an alarm condition Must be of modular design wherein the detector is attached to a base for ease of installation and maintenance Must be of a photoelectric type for detecting smoke particles in the air Must have programmable sensitivity setting from 2%/ft to 3.3%/ft of obscurity Must be UL listed Must be ceiling mounted B-3.4 Input Monitor	threshold from at least 60degC to	
- Must be ceiling mounted B-3.3 Smoke Detector - Must be of an Analog Addressable Smoke Detector directly compatible with the Analog Addressable FACP - Must integrate directly to the FACP Single Line Circuit - Must have settable rotary switch for device addressing - Must have indicator LED to notify power and communication with the FACP panel and also indicate when it is an alarm condition - Must be of modular design wherein the detector is attached to a base for ease of installation and maintenance - Must be of a photoelectric type for detecting smoke particles in the air - Must have programmable sensitivity setting from 2%/ft to 3.3%/ft of obscurity - Must be ceiling mounted B-3.4 Input Monitor		
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Smoke Detector directly compatible with the Analog Addressable FACP - Must integrate directly to the FACP Single Line Circuit - Must have settable rotary switch for device addressing - Must have indicator LED to notify power and communication with the FACP panel and also indicate when it is an alarm condition - Must be of modular design wherein the detector is attached to a base for ease of installation and maintenance - Must be of a photoelectric type for detecting smoke particles in the air - Must have programmable sensitivity setting from 2%/ft to 3.3%/ft of obscurity - Must be UL listed - Must be ceiling mounted B-3.4 Input Monitor	B-3.3 Smoke Detector	
Single Line Circuit - Must have settable rotary switch for device addressing - Must have indicator LED to notify power and communication with the FACP panel and also indicate when it is an alarm condition - Must be of modular design wherein the detector is attached to a base for ease of installation and maintenance - Must be of a photoelectric type for detecting smoke particles in the air - Must have programmable sensitivity setting from 2%/ft to 3.3%/ft of obscurity - Must be UL listed - Must be ceiling mounted B-3.4 Input Monitor	Smoke Detector directly compatible	
device addressing - Must have indicator LED to notify power and communication with the FACP panel and also indicate when it is an alarm condition - Must be of modular design wherein the detector is attached to a base for ease of installation and maintenance - Must be of a photoelectric type for detecting smoke particles in the air - Must have programmable sensitivity setting from 2%/ft to 3.3%/ft of obscurity - Must be UL listed - Must be ceiling mounted B-3.4 Input Monitor		
power and communication with the FACP panel and also indicate when it is an alarm condition - Must be of modular design wherein the detector is attached to a base for ease of installation and maintenance - Must be of a photoelectric type for detecting smoke particles in the air - Must have programmable sensitivity setting from 2%/ft to 3.3%/ft of obscurity - Must be UL listed - Must be ceiling mounted B-3.4 Input Monitor	CONTRACTOR	
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detecting smoke particles in the air - Must have programmable sensitivity setting from 2%/ft to 3.3%/ft of obscurity - Must be UL listed - Must be ceiling mounted B-3.4 Input Monitor	detector is attached to a base for ease of	
setting from 2%/ft to 3.3%/ft of obscurity - Must be UL listed - Must be ceiling mounted B-3.4 Input Monitor		
- Must be ceiling mounted B-3.4 Input Monitor	setting from 2%/ft to 3.3%/ft of	
B-3.4 Input Monitor	- Must be UL listed	
	- Must be ceiling mounted	
- Must be of an Analog Addressable Input	B-3.4 Input Monitor	
	- Must be of an Analog Addressable Input	

Module directly compatible with the Analog Addressable FACP - Must integrate directly to the FACP Single Line Credit - Must have indicator LED to indicate module status - Must be capable of monitoring both Normally Open and Normally Closed contacts - Must not require and End-of-Line resistor for Normally Closed contacts - Must be capable of monitoring multiple devices as long as the circuit wiring does not exceed 45 Ohms - Must be wall-mounted B-3.5 Manual Pull Station - Must be of an Analog Addressable Manual Pull Station directly compatible with the Analog Addressable FACP - Must integrate directly to the FACP Single Line Circuit - Must be a metal single-action pull station for ease of use and durability - Must be a metal single-action pull station for ease of use and durability - Must be wall-mounted B-3.6 Horn and Strobe Design - Must have both horn and strobe function housed in one device			
Single Line Credit - Must have indicator LED to indicate module status - Must be capable of monitoring both Normally Open and Normally Closed contacts - Must not require and End-of-Line resistor for Normally Closed contacts - Must be capable of monitoring multiple devices as long as the circuit wiring does not exceed 45 Ohms - Must be wall-mounted B-3.5 Manual Pull Station - Must be of an Analog Addressable Manual Pull Station directly compatible with the Analog Addressable FACP - Must integrate directly to the FACP Single Line Circuit - Must be a metal single-action pull station for ease of use and durability - Must be UL Listed, ADA and NFPA compliant - Must be wall-mounted B-3.6 Horn and Strobe Design - Must have both horn and strobe			
module status - Must be capable of monitoring both Normally Open and Normally Closed contacts - Must not require and End-of-Line resistor for Normally Closed contacts - Must be capable of monitoring multiple devices as long as the circuit wiring does not exceed 45 Ohms - Must be wall-mounted B-3.5 Manual Pull Station - Must be of an Analog Addressable Manual Pull Station directly compatible with the Analog Addressable FACP - Must integrate directly to the FACP Single Line Circuit - Must be a metal single-action pull station for ease of use and durability - Must be UL Listed, ADA and NFPA compliant - Must be wall-mounted B-3.6 Horn and Strobe Design - Must have both horn and strobe	-		
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B-3.5 Manual Pull Station - Must be of an Analog Addressable Manual Pull Station directly compatible with the Analog Addressable FACP - Must integrate directly to the FACP Single Line Circuit - Must be a metal single-action pull station for ease of use and durability - Must be UL Listed, ADA and NFPA compliant - Must be wall-mounted B-3.6 Horn and Strobe Design - Must have both horn and strobe	-	devices as long as the circuit wiring does	
 Must be of an Analog Addressable Manual Pull Station directly compatible with the Analog Addressable FACP Must integrate directly to the FACP Single Line Circuit Must be a metal single-action pull station for ease of use and durability Must be UL Listed, ADA and NFPA compliant Must be wall-mounted B-3.6 Horn and Strobe Design Must have both horn and strobe 	-	Must be wall-mounted	
Manual Pull Station directly compatible with the Analog Addressable FACP - Must integrate directly to the FACP Single Line Circuit - Must be a metal single-action pull station for ease of use and durability - Must be UL Listed, ADA and NFPA compliant - Must be wall-mounted B-3.6 Horn and Strobe Design - Must have both horn and strobe	B-3.5	Manual Pull Station	
Single Line Circuit - Must be a metal single-action pull station for ease of use and durability - Must be UL Listed, ADA and NFPA compliant - Must be wall-mounted B-3.6 Horn and Strobe Design - Must have both horn and strobe	-	Manual Pull Station directly compatible	
station for ease of use and durability - Must be UL Listed, ADA and NFPA compliant - Must be wall-mounted B-3.6 Horn and Strobe Design - Must have both horn and strobe	-	· ·	
compliant - Must be wall-mounted B-3.6 Horn and Strobe Design - Must have both horn and strobe	, -		
B-3.6 Horn and Strobe Design - Must have both horn and strobe	-		
- Must have both horn and strobe	-	Must be wall-mounted	
Security Application of the Artificial Security	B-3.6	Horn and Strobe Design	
- Must be integrated with Notification Appliance Circuit	-	9	
- Must have settable Horn sound output		Must have settable Horn sound output	

with at least three settings

- Must have settable strobe light output with at least seven settings
- Must be 12VDC or 24VDC powered
- Must be wall-mounted
- Must have a maximum candela output of at least 180cd
- Must have a maximum horn sound output of at least 91dbA
- Must be UL listed

B-3.7 High Sensitivity Smoke Detector

- Must be of a High Sensitivity Aspirating type Smoke Detector
- Must have at least one pipe network and up to four pipe networks for maximum coverage of a monitored area
- Must have automatic calibration and/or normalization feature for quick adaptation to the OTS command center environment
- Must be capable of being monitored via software with Graphical Interface indicating real-time smoke levels and other system parameters such as fan speed and pipe airflow values
- Must be capable of network-based monitoring via Ethernet connectivity
- Must be UL and CE listed
- Must have at least a maximum area coverage of 1,500 sqm
- Must have a maximum pipe length of at least 200m

- Must have at least four built-in programmable relays for integration with 3rd part equipment such as FM-200 and/or HVAC
- Must have a sensitivity of at least 0.01 to 19% obs/m
- Must have event log of uo to 15,000 events
- Must have user programmable smoke levels and alarm actions for relays
- Must have no other consumable part except for the air filter
- Must have a voltage input rating of 20-30VDC
- Must be equipped with back-up battery with up to 2-hours back-up time
- Must have built-in display with indicators for fault, alarm, fire, power and other status indicators
- Must have an operating temperature within 5degC to 39degC

B-4.0 Fire Suppression System

- Must provide FM-200 Fire Suppression System for the following areas: Data Center, UPS Room, EE Room, Battery Room, and Lower Workstation Area
- Must be capable of extinguishing fire based on only the area with triggered alarm. Other protected areas must not discharge unless triggered by an alarm
- Must have dual-zone triggering to ensure validity of alarm
- Must have abort stations and manual release pull stations per zone

- Must have alarm bells and horn strobe alarms per zone to notify operators of an impending suppressant release
- Must have at least two smoke detectors per zone for dual-zone triggering
- Must have standby battery back-up of at least 24 hours
- FM 200 agent must be sized depending on the room and must extinguish fire within the area
- Must be UL listed
- Must be in a metal enclosure with lockable cabinet
- Must include any and all accessories required for a fully functioning system able to suppress electrical fires

B-5.0 Operator Workstation Consoles

- Must be designed, supplied and installed based on the provided reference drawings
- Must be a pre-engineered modular operation workstation console with built-in slats wherein equipment and/or shelving can be mounted
- Must be comprised of end-frames and/or intermediate frames with horizontal stringers and decorative end panels
- Must have a self-supporting metal framework wherein all metal cladding/finished panels can be installed
- Must have built-in data and power ducting and pre-cut sections for data and power ports
- Frame must be made of steel and/or

anodized aluminum capable of handling heavy equipment

- Must include monitor mounts, paper trays and phone caddies as well as a storage cabinet
- Must have built-in CPU shelf
- Must be ergonomically designed for maximum comfort to the user
- Must have VESA compatible monitor mounts
- Must have at least 10-years warranty from manufacturer on all steel frame components, sliding and/or hinge components and laminate surface
- Must have built-in duct covers and bottom shelving

B-6.0 Raised Flooring System

- Must cover the entire Data Center area including the Electrical Room, UPS Room and Battery Room
- Must cover the Lower Workstation Area for ease of cabling access and routing of all cables to all computers and video wall devices
- Must be a bonded, anti-static High Pressure Laminate, Steel Cement Panel that is suitable for static and dynamic load
- Must have a steel falt-topped sheet, with epoxy painted finish
- Must be non-combustible and flame retarding
- Must be lightweight and able to be lifted with a standard suction lifter

- Must measure 600mm x 600mm and be at least 33mm thick
- Must have a bolt-on stringer understructure system with Galvanized steel pedestal base
- Must have galvanized steel pedestal head
- Must have a floor height of 300mm or 12 inches
- Must have a concentrated load rating of at least 450KG

B-7.0 Structured Cabling System

- Must not be installed and/or mounted near high voltage power lines nor share the same conduit/channel/sleeve with high voltage power lights
- Must be installed in accordance to the Philippine Electrical Code
- Must use matched components from a single manufacturer to ensure compatibility and conformance to the TIA/EIA-568 CAT6 standard
- Must submit proof of warranty support from the cabling system manufacturer stating that the cabling installation of the bidder. Must be supported by at least 20-years manufacturer's warranty
- Must have a maximum of 90-meters from information outlet to a patch panel with a reserve of 5-meters patch cord for each end
- Must be housed in a cable tray or cable duct or other such system wherein all cables are elevated from the ground and reasonable protected from damage by rodents, liquids and other chemical

substances that may damage the cables

- Must use at least 24-Port CAT6 patch panels
- Must use at least 1 Port Faceplates with Information Outlet
- Must use a CAT6 cable that is rated for 350MHz and conforming to TIA/EIA-568B standard
- Must have 8 conductors with a spaces in between and an outer protective PVC insulation
- Must be of a Unshielded Twisted Pair of CAT6 Copper Cabling System sourced from one manufacturer only
- Must be UL listed
- Must be concealed in walls, finished ceiling or underflow. Cables should be housed in conduit, metal wire trough, or wire mold wherein cables are reasonably protected from damage by rodents, liquids and day-to-day activity
- Cable trays must be installed in IDF/MDF areas to route and manage copper cables
- All cabling and termination points must be 100% tested, verified and certified to allow for manufacturer's warranty of the cabling system
- There must be no splices for any cable involved in transmitting data
- All horizontal cabling must be terminated to a patch panel on one side and an information outlet on other side, unless a patch panel is required on both ends
- All pipes and fittings must be at least of

- the EMT type and secured by metal clips
- All pipes must be UL listed
- All outlets, boxes and fittings must have a cover installed to prevent accidental damage by rodents and to avoid insect ingress as much as possible
- Must use CAT-6 Unshielded Twisted Pair cables, information outlets, patch cords and patch panels that meet TIA/EIA-568 CAT6 standard
- All cables and termination hardware must be 100% tested for defects in installation and to verify cabling system performance under installed conditions according to the requirements of TIA/EIA 568B
- Any defect in the cabling system including but not limited to cable, connectors, couplers, patch panels and connection blocks must be repaired or replaced in order to ensure 100% operational performance of the cabling system

SLAT-Wall Operator's console

- Must be custom made by an ISO 9001:2008 command center console manufacturer;
- Must be ergonomic designed that can deliver optimized comfort to the user in a mission critical environment;
- Must provide a maintenance free ventilation to help avoid overheating of equipment;
- Must be modular system constructed;
- Must have 2 semi-concealed cable

raceways separating electrical power from data and communications cables;	d.
- Must have electrical and data outlet panels;	
- Must have a retractable and fixed equipment shelf;	
 Must be made of maximum 2mm thick cold rolled steel sheet and maximum 5mm thick hot rolled steel sheet with precision aluminum extrusions for durability and strength; and 	
- Must have detailed technical drawings of the command center workstation consoles.	
CELLE Chair - Must be made by an ISO 9001:2008 manufacturer;	
 Must be ergonomically designed that supports lower back, comfort and good posture to operator in a 24/7 environment; 	
- Must have a back-rest synchronized tilt mechanism;	
- Must have sliding and height adjustable arm rest; and	*
- Must have adjustable height mechanism.	9
All other specifications listed under Section VI – Technical Specifications	
<u> </u>	

I hereby certify that the statement of compliance to the foregoing technical specifications are true and correct, otherwise, if found to be false either during bid evaluation or post-qualification, the same shall give rise to automatic disqualification of our bid.

Bid Securing Declaration Form [shall be submitted with the Bid if bidder opts to provide this form of bid security]

REPUBLIC OF THE PHILIPPINES)	
CITY OF	_) S.S.

BID SECURING DECLARATION
Project Identification No.: PB No. 21-005-8

To: Office for Transportation Security

Thru: Chairperson

Bids and Awards Committee VIII Procurement Service

I/We, the undersigned, declare that:

- 1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.
- 2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f), of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.
- 3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
 - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
 - c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of [month] [year] at [place of execution].

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]



Republic of the Philippines

DEPARTMENT OF TRANSPORTATION

MEMORANDUM

FOR

UNDERSECRETARIES

ASSISTANT SECRETARIES HEADS OF AGENCIES ALL CONCERNED

(See distribution list)

FROM

UNDERSECRETARY FOR LEGAL AFFAIRS

Department of Transportation (DOTr) Undersecretary for Aviation & Airports

AND

Control No JUSAA

PROCUREMENT

ASSISTANT SECRETARY FOR PROCUREMENT

SUBJECT

MOBILIZATION FEES AND ADVANCE PAYMENTS

DATE

Mr. 200

10 JULY 2018

This is to reiterate the earlier instructions from the Secretary on the removal of mobilization fees and advance payments.

Under Annexes D and E of the 2016 Revised Implementing Rules and Regulations of Republic Act No. 9184 (Government Procurement Law), an advance payment shall be made, for goods and consulting services, (1) after prior approval of the President, the same not to exceed fifteen percent (15%) of the contract amount unless otherwise directed by the President, and; for infrastructure, (2) upon a written request of the contractor, also in an amount not to exceed fifteen percent (15%), the same to be submitted as a contract document. An irrevocable standby letter of credit of equivalent value from a commercial bank, a bank guarantee or a surety bond called upon demand issued by a surety or insurance company duly licensed by the Insurance Commission and confirmed by the procuring entity shall be required in both instances.

However, in order to ensure that projects are awarded to qualified bidders, to eliminate corruption, and to guarantee timely completion of projects, no advance payments or mobilization (sees shall, as a rule, be extended or paid with respect to any project of the Department.

This condition shall be incorporated in all Bid Data Sheets and Instructions to Bidders, and shall form part of the contract.

For strict compliance.

REINLER

YEBRA.

Office of the Secretary
This Egopartment

cc:

Land Transportation Office (LTO)

Land Transportation Franchising and Regulatory Board (LTFRB)

Office of Transportation Cooperatives (OTC)

Toll Regulatory Board (TRB)

Northrail

Light Rail Transit Authority (LRTA)

Philippine National Railways (PNR)

DOTr-MRT3

Civil Aeronautics Board (CAB)

Philippine Aerospace Development Authority (PADC)

Civil Aviation Authority of the Philippines (CAAP)

Manila International Airport Authority (MIAA)

Mactan Cebu International Airport Authority (MCIAA)

Clark International Airport Authority (CIAC)

Philippine Marine Merchant Academy (PMMA)

Philippine Coast Guard (PCG)

Maritime Industry Authority (MARINA)

Cebu Ports Authority (CPA)

Philippine Ports Authority (PPA)

Office for Transportation Security (OTS)