TRANSPORTATION SECURITY ADMINISTRATION

Innovation Supplement

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Innovation and Concept Supplemental Information 1-2017 v.1

MISSION STATEMENT

The purpose of this guide, an initiative to demonstrate emerging capabilities in the checkpoint lanes, is to examine potential future capability of passenger and carry-on baggage screening by analyzing possible concepts in the future process of screening, improvement of passenger screening, and flexibility in future design.

The Innovation Task Force (ITF) fosters innovation by integrating key stakeholders to identify and demonstrate emerging solutions that increase security effectiveness and efficiency, improve passenger experience and the flow of commerce, and deliver solutions that secure the freedom of movement throughout the nation's transportation systems. This information can be used by airport stakeholders to consider future infrastructure and design requirements and make risk-based decisions for potential inclusion in planning.

DISCLAIMER

Please be advised that it is the airport's responsibility to create drawing concepts, issue construction documents, and provide as-built drawings. TSA equipment is subject to change, which may affect the infrastructure requirements. Accordingly, the airport should be prepared to make changes to the above referenced documents if needed.

Additionally, adjustments may be needed after installation of TSA equipment if there are changes to design and/or operations of the checkpoint. Maximum flexibility in the checkpoint size and infrastructure needs to be considered for future checkpoint reconfigurations and new checkpoint terminal planning. Please check with the TSA checkpoint design team/ITF for the latest documents and request updated documents/standards every six (6) months at a minimum.

Please note that TSA does not endorse specific equipment or specific Original Equipment Manufacturers in any way. This document in no way endorses any equipment or vendors' equipment. Any and all equipment is shown only as an example.

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1-1 QUEUE MANAGEMENT

1-1.1 STANCHIONS

The next-generation of queue management will include several new technologies focused on streamlining the passenger experience while navigating the queue and preparing for the screening process, leading to more a pleasant experience overall.

1-1.1.1 WEIGHTED BASE STANCHIONS

Weighted base stanchions are widely available and cost effective. While they are simple and commonly used, there are several issues with their use. The base weight is large, at 14” in diameter, and heavy, at 30 lbs. The large base protrudes into the passenger lane and requires more space while catching passenger roller bags, creating less efficiency in space, and aggravating passengers. Weighted base stanchions are also not affixed to the floor and rely on rubber feet to prevent movement. They have a tendency to migrate to new positions and can require personnel hours to monitor and correct the queue frequently.

Figure 1

1-1.1.2 MAGNETIC BASE STANCHIONS

Magnetic stanchions with reduced size base allow more clearance and less interference with passenger baggage. Floor plates are secured with adhesive and are not permanent, allowing for flexibility. The stanchions base is 7.5” in diameter with a low profile. The base protrudes past the post 2.5” and the posts weigh roughly 10 lbs. The stanchions do not migrate because they are secured to the base, which is affixed to the floor. They cannot be used in carpeted checkpoints. They can be removed to adjust the size of the checkpoint seasonally, and the base plate is not a trip hazard. Storage requirements are also reduced.

Figure 2

1-1.1.3 SOCKET BASE STANCHIONS

Socket stanchions with a small base flange allow for more clearance and less interference with passenger baggage. The stanchion base flange is 5” in diameter and protrudes 1.5” from the post. Once the receiver is installed, there is no flexibility to move the post location. The post does not have a flange for easy storage.

Figure 3

1-1.2 DIVEST COACHING

1-1.2.1 PASSENGER PREPARATION FOR THE SCREENING PROCESS

Passenger preparation and divest coaching during the queue waiting process has the capability to substantially reduce screening time. Significant time is lost when passengers do not follow simple guidelines and processes; this delay not only affects them, but all passengers waiting. Video monitors or video walls in the passenger queue can prepare the passengers for the standard screening process while they are waiting. The videos provided by TSA Headquarters can be played on a continuous loop or be motion activated. Viewing distance from the passengers becomes an issue with video presentations. Video monitors need to be placed close enough to the passengers so that they receive the information presented. If a suitable location is not available close to the queue, a video wall could present the information. The video wall has the benefit of addressing the entire queue instead of groups of passengers at a time. Video presentations can include interactive avatars to answer specific passenger questions as they approach divest.

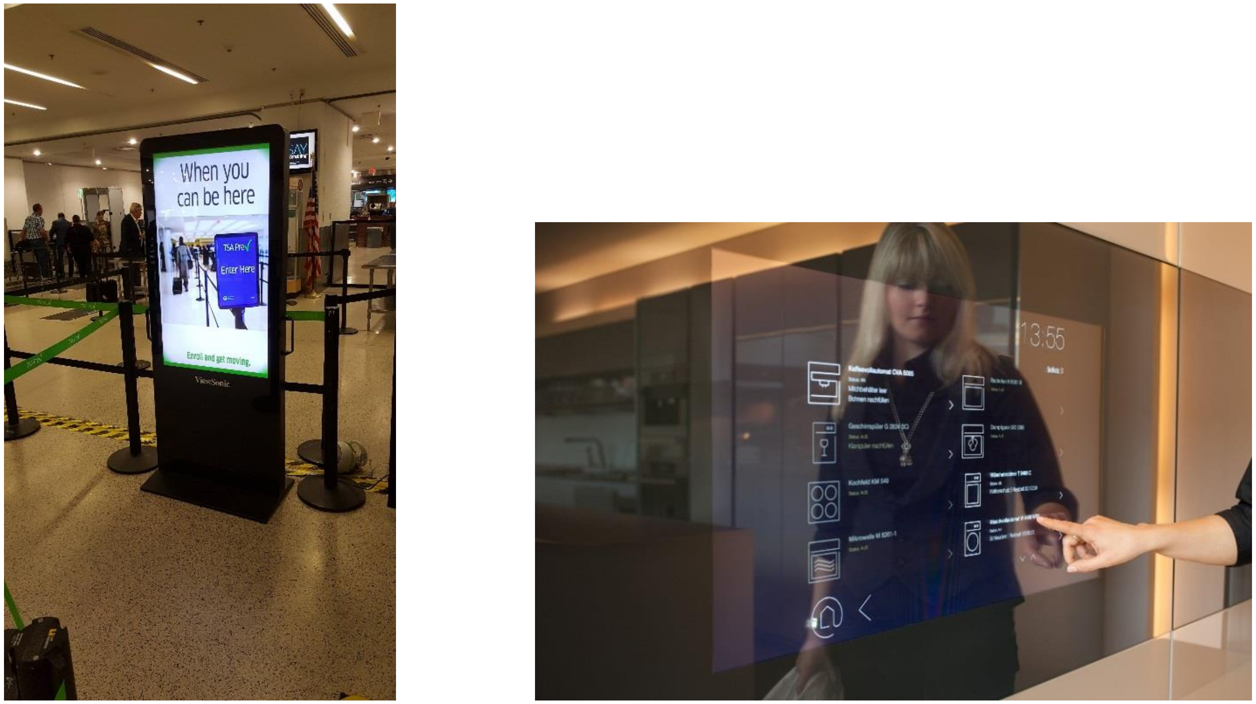


Figure 4

1-1.3 AUTOMATED WAIT TIME

Automated wait time is a technology that allows for active monitoring and reporting of wait times at various checkpoints in the airport. The systems use various protocols to measure when passengers enter the checkpoint queues and then exit the screening area. This wait time data is then broadcasted to the passengers, typically through a video display at the entrances to the checkpoint queue. Passengers are then able to make informed decisions on which checkpoint would be in their best interest to use. The information can also be included in non-secure side airport areas, so that once check-in is completed passengers can make their decision in the check-in areas.

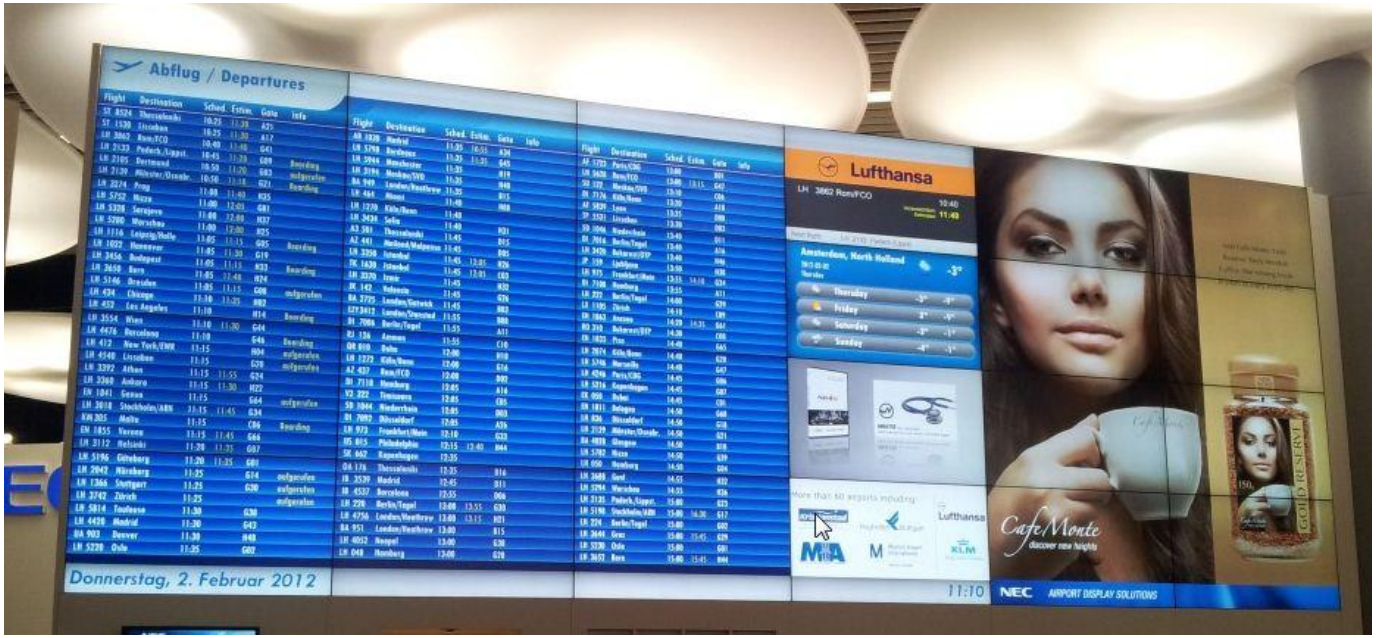


Figure 5

1-2 PASSENGER AUTHENTICATION

1-2.1 TDC – E-GATE – BIOMETRIC AUTHENTICATION TECHNOLOGY

The next-generation of passenger identification and authentication will include several new technologies. These technologies are focused on reducing staffing demands and increasing passenger throughput. E-Gates will allow validated passengers to enter the checkpoint through the Biometric Authentication Technology (BAT) and e-gate system without the aid of a Transportation Security Officer (TSO). BAT will provide a higher level of security for the authentication process. The biometric authentication options are currently under consideration and examination.

1-2.1.1 E-GATE SELF-AUTHENTICATION

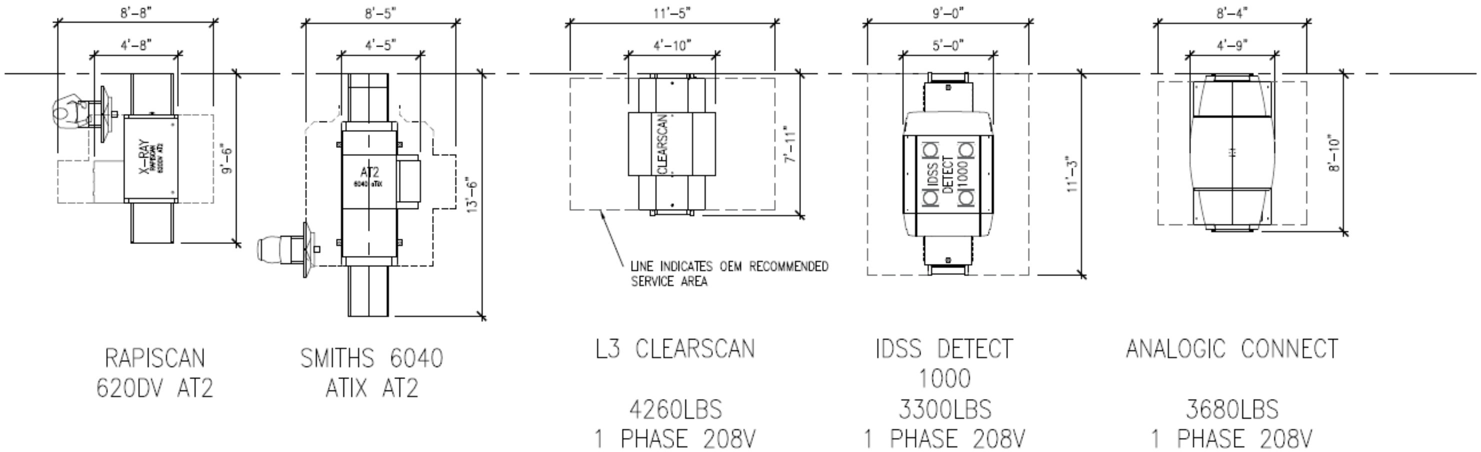
E-Gate self-authentication will allow passengers to enter the checkpoint for screening with minimal supervision. Similar to self-check-in kiosks, this will allow passengers to scan credentials, self-authenticate, and enter the checkpoint through a control point. Gated kiosks would be deployed with the self-authentication process for access control.

Figure 6

1-3 PASSENGER SCREENING

1-3.1 COMPUTED TOMOGRAPHY SCANNER

The next-generation of carry-on baggage scanning may include Computed Tomography (CT) X-Ray Scanning, or CT Scanning. CT provides three-dimensional images of bag contents, as well as solid and liquid explosives detection. CT can eliminate the need for passengers to divest liquids from bags. Some CT systems will require the need for additional infrastructure and the inclusion of higher voltage service in the lanes. Due to the complexity of the systems, the weight and size could be an issue in some cases.



COMPARISON CHART						
OEM & UNIT	OVERALL LENGTH	OVERALL WIDTH	SERVICE AREA WIDTH	WEIGHT IN LBS	FLOOR LOAD	POWER REQUIREMENT
RAPISCAN 620DV	9'–6"	4'–8"	8'–8"	2458	84LB/S.F.	1 PHASE 120V/ 20A
SMITHS 6040 ATIX	13'–6"	4'–5"	8'–5"	3528	86LB/S.F.	1 PHASE 120V/ 20A
L3 CLEARSCAN	7'–11"	4'–10"	11'–5"	4600	87LB/S.F.	1 PHASE 208V/ 30A
IDSS DETECT 1000	11'–8"	5'–0"	9'–0"	3300	82LB/S.F.	1 PHASE 208V/ 30A
ANALOGIC CONNECT	8'–10"	4'–9"	8'–4"	3680	87LB/S.F.	1 PHASE 208V/ 30A

NOTE: FLOOR LOADING NOT CONFIRMED BY STRUCTUAL ENGINEER.

Figure 7

1-3.1.1 COMPUTED TOMOGRAPHY X-RAY SCANNING – EXAMPLE – L-3 ClearScan

e

Equipment	Quantity	Power Requirements	Information Technology (IT) Requirements	Additional Information
ClearScan	Arrangement Dependent	• Dedicated • 20A, 240V, 3.7KVA/unit	• Data Drops = 2 at the unit. • The cable length from the termination point in the IT cabinet to the data outlet in the work area shall not exceed 295'.	• 4260 lbs

Figure 8

1-3.1.2 COMPUTED TOMOGRAPHY X-RAY SCANNING – EXAMPLE – IDSS DETECT 1000

Equipment	Quantity	Power Requirements	IT Requirements	Additional Information
DETECT 1000	Arrangement Dependent	• Dedicated • 30A, 208V, 5.2KVA/unit	• Data Drops = 2 at the unit. • The cable length from the termination point in the IT cabinet to the data outlet in the work area shall not exceed 295'.	• 3300 lbs

Figure 9

1-3.1.3 COMPUTED TOMOGRAPHY X-RAY SCANNING – EXAMPLE – Analogic ConneCT

Equipment	Quantity	Power Requirements	IT Requirements	Additional Information
ConneCT	Arrangement Dependent	• Dedicated • 50A, 208V, 1 PHASE.	• Data Drops = 2 at the unit. • The cable length from the termination point in the IT cabinet to the data outlet in the work area shall not exceed 295'.	• 3680 lbs

Figure 10

1-3.2 AUTOMATED SCREENING LANES

The next generation of passenger screening management will include Automated Screening Lanes (ASLs). These systems will eliminate the need for TSO oversight of bins, allowing for more effective staffing of the checkpoints. The systems allow better passenger management to eliminate congestion in divest and composure areas. The systems also have the capability for having multiple bag resolutions simultaneously and multiple stations for secondary screening of reject bags. The systems are also flexible with modularity in divest, buffer, and re-vest positions, as well as line offsets to avoid obstructions such as structural columns. Due to the bin return conveyor being under the bag scanner, there are limitations on where power and data infrastructure can be located.

1-3.2.1 AUTOMATED SCREENING LANE – EXAMPLE – MacDonald Humfrey LTD

Equipment	Quantity	Power Requirements	IT Requirements	Additional Information
SmartView	Arrangement Dependent	• Dedicated • 20A, 125V, 1920VA/unit • 20A, 110V, 1920VA/unit	• Data Drops = 4 at the unit 3 to 6 run to the workstations. • The cable length from the termination point in the IT cabinet to the data outlet in the work area shall not exceed 295'.	• Table mounted Automated Viewing Station (AVS) is the "Bespoke" option, current AVS tables with a search table is acceptable and preferred in some situations due to flexibility.
Additional analyst work stations	Up to 4 Per AT2 total	• Non-Dedicated • 20A, 125V /unit	• Data Drops =1 to 4	

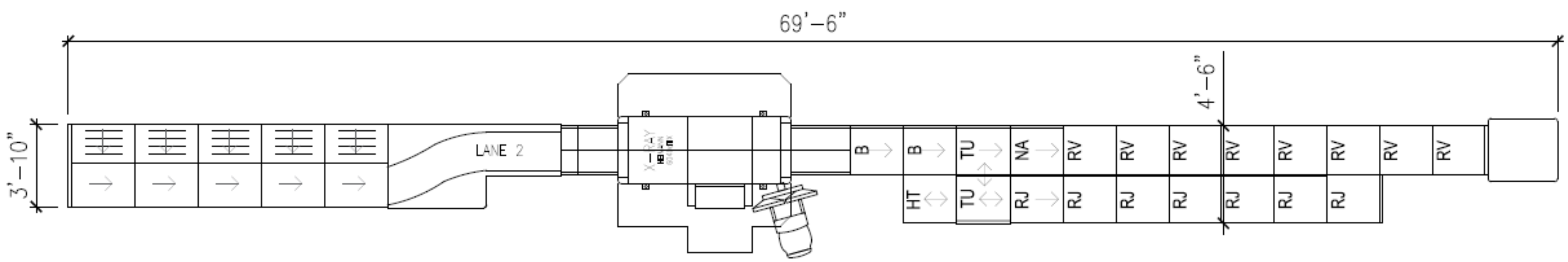


Figure 11

1-3.2.2 AUTOMATED SCREENING LANE– EXAMPLE – Scarabee

Equipment	Quantity	Power Requirements	IT Requirements	Additional Information
Scarabee	Arrangement Dependent	• Dedicated • 20A, 125V, 1920VA/unit • 20A, 110V, 1920VA/unit	• The cable length from the termination point in the IT cabinet to the data outlet in the work area shall not exceed 295'.	

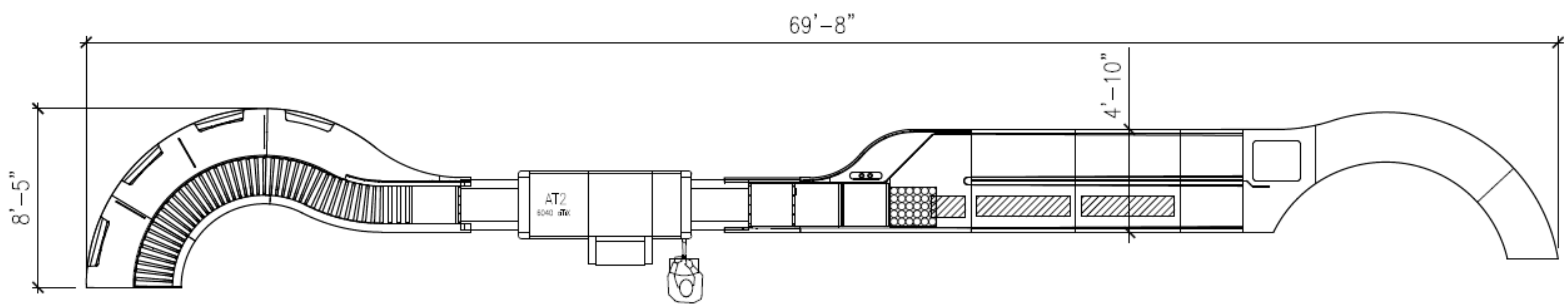


Figure 12

1-3.2.3 AUTOMATED SCREENING LANE– EXAMPLE – Smiths Detection

Equipment	Quantity	Power Requirements	IT Requirements	Additional Information
iLane.pro	Arrangement Dependent	• Dedicated	• Data Drops = 4 at the unit 3 to 6 run to the workstations. • The cable length from the termination point in the IT cabinet to the data outlet in the work area shall not exceed 295'.	• Table mounted AVS is the "Bespoke" option, current AVS tables with a search table is acceptable and preferred in some situations due to flexibility.

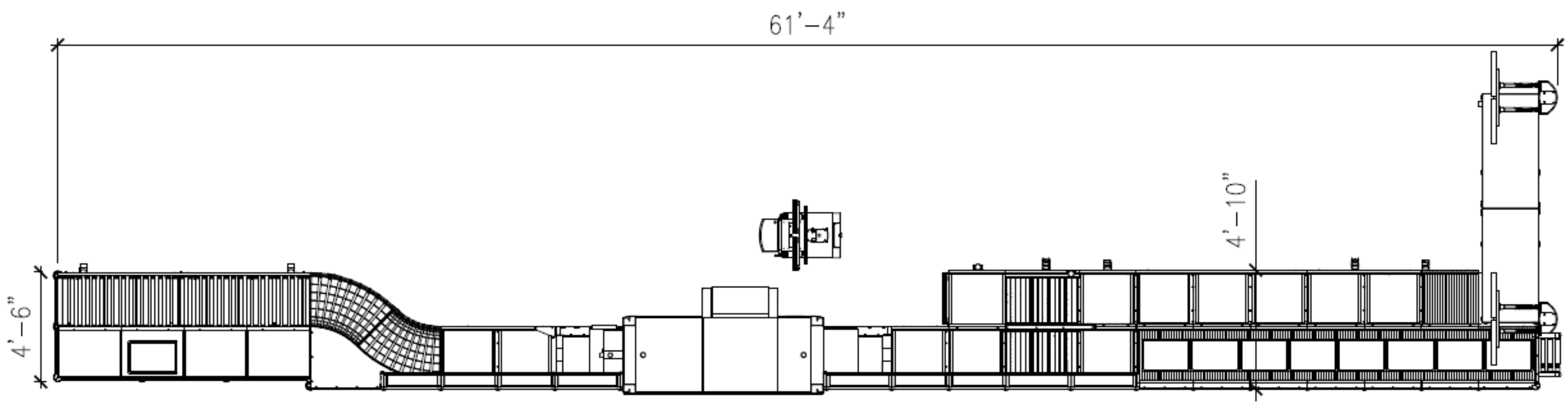


Figure 13

1-3.2.4 AUTOMATED SCREENING LANE– EXAMPLE – Vanderlande Industries

Equipment	Quantity	Power Requirements	IT Requirements	Additional Information
SCANNOJET	Arrangement Dependent	• Dedicated • 208/240v 30amp	• Data Drops = 4 at the units 3 to 6 run the workstations. 2 x VGA direct to AVS. • The cable length from the termination point in the IT cabinet to the data outlet in the work area shall not exceed 295'.	• Table mounted AVS is the "Bespoke" option, current AVS tables with a search table is acceptable and preferred in some situations due to flexibility.

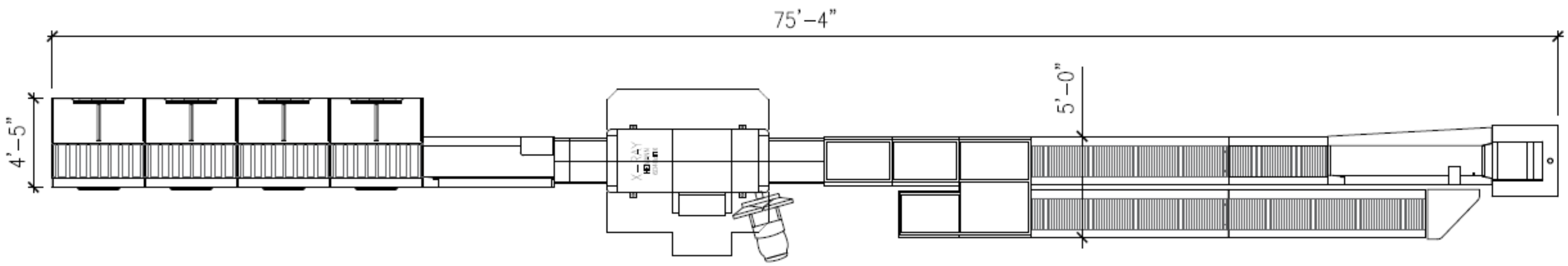


Figure 14

1-3.3 REMOTE BAG RESOLUTION/IMAGE OPERATIONS ROOM

The next generation of automated bag screening will include remote resolution to provide increased throughput per lane. Currently, additional bag screening via remote resolution is expected to be 1.4 Full-Time Equivalent per ASL, but assessment of operations is required prior to final determination. Checkpoints of three or more lanes may qualify for the remote resolution. Smaller checkpoints in airports with other checkpoints may be included in the shared solution.

1-3.3.1 REMOTE RESOLUTION ROOM

Remote resolution rooms are expected to require a built-in room within 100' of the checkpoint. Data cable runs from the TSA Information Technology (IT) room must not exceed industry standard. Remote resolution rooms located between two checkpoints can serve both checkpoints. Rooms must have adequate Heating, Ventilation, and Air Conditioning (HVAC) to handle the equipment and personnel loads. Lighting must be controllable to reduce light levels when screening is active. Additional infrastructure is required to support the necessary equipment. Carpet and acoustical tile ceilings are recommended to keep sound levels reduced. Separate workstations are required for each TSO. Each workstation will have a dual flat screen monitor in a flexible configuration, a work surface with drawer storage below, and privacy screens between work stations.

1-3.4 L3 PROVISION2 AIT2 - EXAMPLE

Equipment	Quantity	Power Requirements	IT Requirements	Additional Information

L3 ProVision2	Arrangement Dependent	• Dedicated
		• 20A, 125V, 1920VA/unit
		• 2-Pole, 3-Wire Grounding
		• NEMA 5-20R Simplex Receptacle
		• Freestanding Tripp Lite Uninterruptable Power Supply (UPS) provided by vendor
		• 25' power cord from the Advanced Imaging Technology (AIT) to the UPS (originates in control leg)
		• 10' power cord from the UPS to the receptacle
			• Data Drops = 2
			• The cable length from the termination point in the IT cabinet to the data outlet in the work area shall not exceed 295'.
				• An Explosive Trace Detection (ETD) is to be co-located with the AIT for additional passenger screening. The ETD can be located at or on the same side as the control leg.
				• Height/Ceiling clearance requirement: 7'-9" / 8'-0"
				• Weight: 1,500 lbs., 53 PSI per support feet, 0.284 PSI overall
				• The 16'-0" shipped USB cable can be substituted for a 25'-0" cable in the field if necessary.
				• The power cable shipped with the unit may be replaced with TSA Designer approval
				• Maximum slope:
				  • Parallel to passenger travel: 2.86 degrees
				  • Perpendicular to passenger travel: 1.73 degrees
				• The floor must be flat and must not vary more than 0.75 in. within the installation area

L3 Co-Located ETD	1 Per AIT	• Non-Dedicated • 20A, 125V, 350VA/unit	• Data Drops = 2	

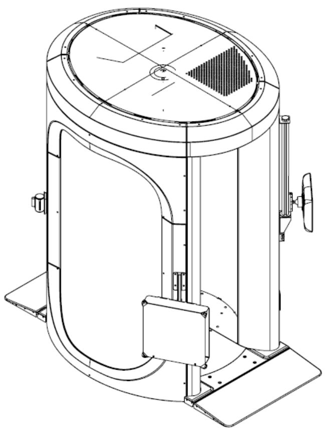


Figure 15

1-3.5 ROHDE & SCHWARZ AIT2 - EXAMPLE

Equipment	Quantity	Power Requirements	IT Requirements	Additional Information
QPS200	Arrangement Dependent	• Dedicated • 2X 15A, 220V	• Data Drops = 2 • The cable length from the termination point in the IT cabinet to the data outlet in the work area shall not exceed 295’.	• An ETD is to be co-located with the AIT for additional passenger screening. The ETD can be located at or on the same side as the control leg.

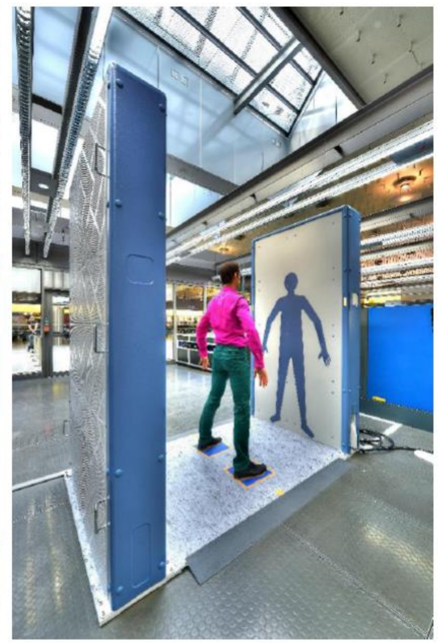
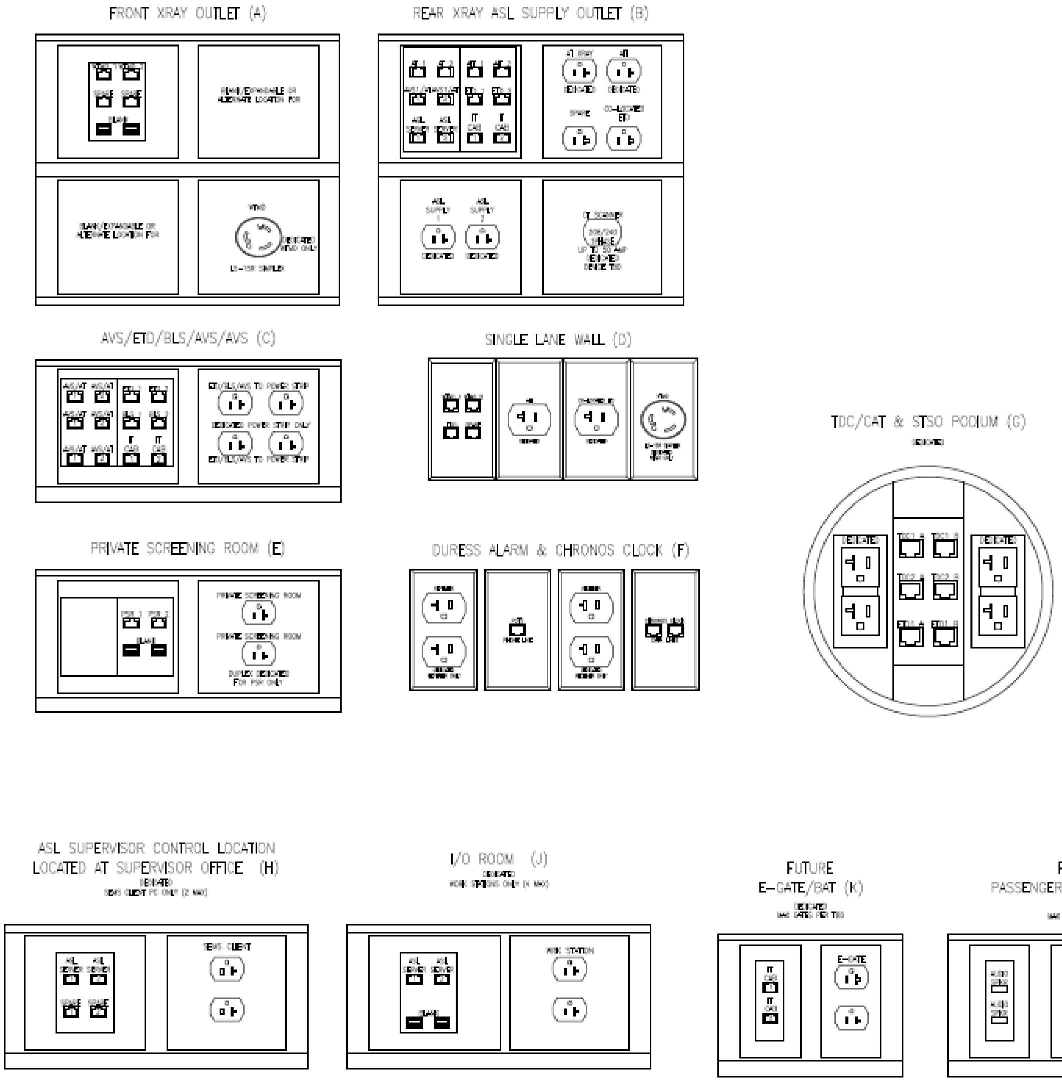


Figure 16

1-3.6 STANDARD ELECTRICAL REQUIREMENTS

1-3.6.1 STANDARD ELECTRICAL INFRASTRUCTURE DEVICES – MACDONALD HUMFREY



POWER REQUIREMENTS		
EQUIPMENT	MAX NUMBER OF EQUIPMENT ALLOWED PER DEDICATED CIRCUIT	NOTES
TDC/CAT/E GATE/BAT	1	1 20A CIRCUIT PER LANE
WTMD	10	L5-15R SIMPLEX RECEPTACLE
AT X-RAY	1	PROVIDE SIMPLEX RECEPTACLE
CT SCANNER	1	RECEPTACLE TO BE DETERMINED, PROVIDE DEDICATED 208/240 1PHASE UP TO 50AMP
ASL Supply 1	1	PROVIDE SPLIT WIRED DUPLEX RECEPTACLE
ASL Supply 2	1	PROVIDE SPLIT WIRED DUPLEX RECEPTACLE
AIT	1	PROVIDE SIMPLEX RECEPTACLE DEDICATED AT EACH LANE
CO-LOCATED ETD	2	
AVS/AVS/ETD/BLS/AVS	1 SHARED LOCATION/ DEDICATED	OUTLET(S) POWERS RELOCATEABLE POWER TAP/ PROVIDE 2 20AMP CIRCUITS
PRIVATE SCREENING ROOM	1	ONE OUTLET INSIDE AND ONE OUTLET OUTSIDE OF PRIVATE SCREENING ROOM
STSO PODIUM	1	PROVIDE DUPLEX OUTLET
IT CABINET	1	30A L5-30R RECEPTACLE
ASL SEMS SERVER	1	30A DEDICATED
DURESS ALARM RECEIVER PANEL	2	CIRCUITS SHARED CAN BE MORE THAN TWO THROUGHOUT CHECKPOINT BUT ONLY CAN INSTALL TWO REPEATERS PER DUPLEX
DURESS ALARM REPEATER PANEL	2	CIRCUITS SHARED CAN BE MORE THAN TWO THROUGHOUT CHECKPOINT BUT ONLY CAN INSTALL TWO PER DUPLEX
E-GATE/BATT	TBD	TBD
PASSENGER PREP/AVATAR	TBD	TBD
ALL CIRCUITS TO HAVE 20 AMP SERVICE WITH EXCEPTION TO IT CABINET AND ASL SERVER CABINET WHICH SHALL HAVE 30 AMP SERVICE		
DEVICE LOCATIONS ARE SUBJECT TO CHANGE AND SHOULD BE VERIFIED PRIOR TO INSTALL		
ALL ASL LANE INSTALLATIONS SHALL INCLUDE TSA HQ IT IN PLANNING AND INSTALLATION		
THE IT CABINET SHALL BE A STANDARD DESIGNED 26U TYPE WALL OR FLOOR MOUNT RACK ENCLOSURE, RECOMMENDED DEPTH OF 32"		

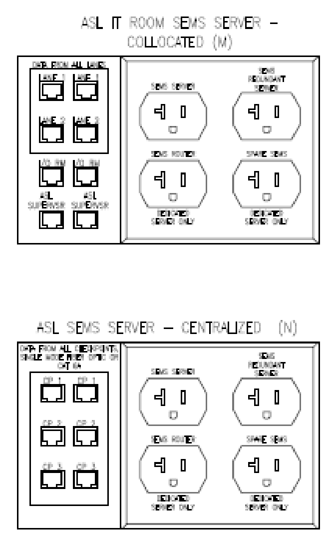


Figure *17*

1-3.6.2 STANDARD ELECTRICAL INFRASTRUCTURE LAYOUT - MACDONALD HUMFREY

SPECIAL SCOPE NOTE:
PLEASE NOTE THAN ANY COSTS ASSOCIATED WITH THE PLANNING, DESIGN AND/OR OTHER ASPECTS OF THIS PROJECT ARE THE SOLE RESPONSIBILITY OF THE AIRPORT AND/OR AIRLINE AND TSA WILL NOT BE LIABLE FOR ANY COSTS OR REIMBURSEMENT FOR ANY ASPECT OF THE PROJECT.

NOTES:

1. EQUIPMENT SHOWN REPRESENTS TWO DIFFERENT X-RAY MANUFACTURERS FOR EXAMPLE OF OUTLET PLACEMENT, EACH CHECKPOINT TYPICALLY INCLUDES ONLY ONE MANUFACTURER.
2. EACH EQUIPMENT LOCATION SHALL UTILIZE EITHER FLOOR OUTLETS OR POWER POLES, BUT NOT BOTH TYPES OF POWER/DATA DEVICES (SELECTION DEPENDS ON AIRPORT BUILDING CONSTRUCTION.)
3. IT IS RECOMMENDED THAT THE PRIVATE SCREENING ROOM, IT ROOM, AND THE STSO PODIUM BE BUILT INTO THE SPACE OF THE AIRPORT.
4. POWER/DATA DEVICES SHOWN ARE REPRESENTATIVE OF THE TYPICAL OUTLETS REQUIRED, REFER TO THE CHECKPOINT DESIGN GUIDE FOR ALTERNATIVE TYPES OF POWER/DATA DEVICES (POWER POLES, MODULAR BOXES, ETC.)
5. "ASL" REFERS TO AUTOMATED SCREENING LANES.
6. ON SCREEN RESOLUTION, I/O, ROOM TO HAVE 1.4 WORK STATIONS PER LANE ROUNDED UP.
7. ASL SEMS SERVER TO BE LOCATED IN THE TSA IT ROOM. PROVIDE 2 CAT 6 DATA CABLES FROM ASL SEMS SERVER TO THE TSA IT CABINET FOR FUTURE USE.
8. PROVIDE GENERAL CONVENIENCE OUTLETS IN THE BEGINNING, MIDDLE AND END OF PASSENGER QUEUE.
9. LOCATION OF THE E-GATE TURNSTILES WILL BE AT BEGINNING OF THE PASSENGER QUEUE.
10. AUTOMATIC WAIT TIME INFRASTRUCTURE SHALL BE INSTALLED BASED ON THE OEM REQUIREMENTS AS SELECTED BY THE AIRPORT AUTHORITY.

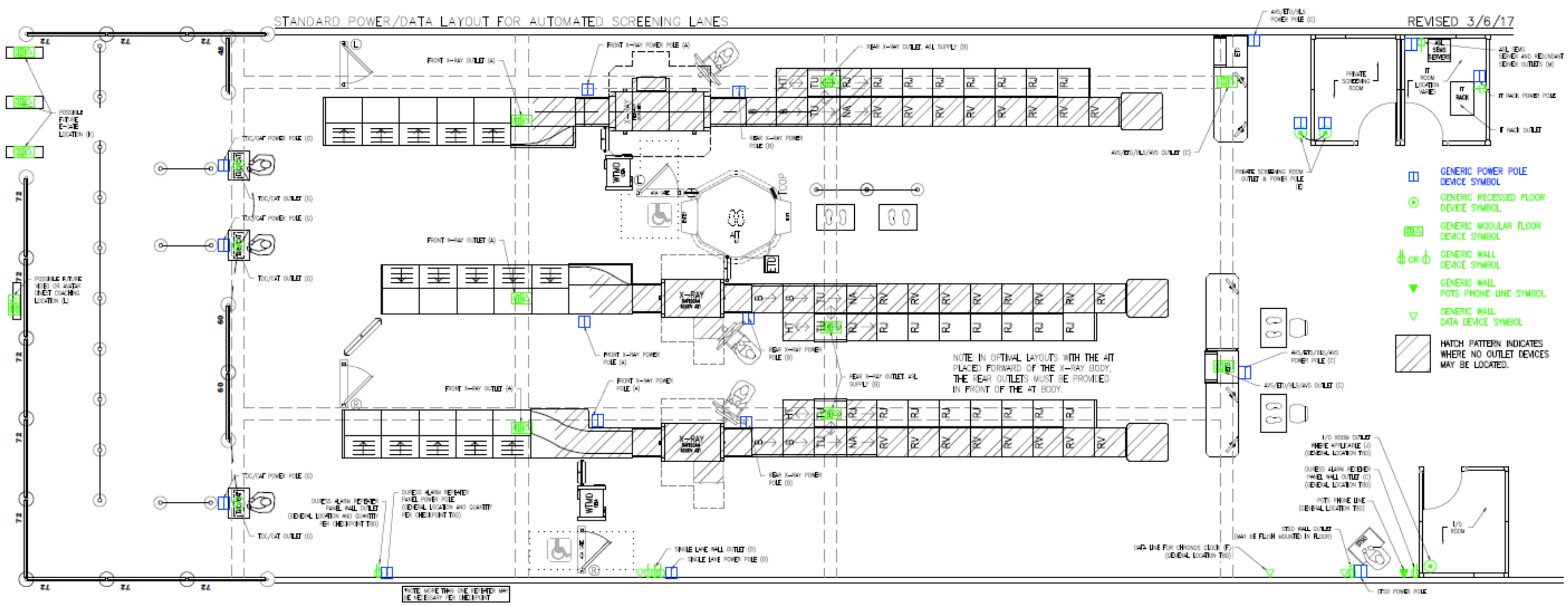


Figure 18

1-3.6.3 STANDARD DATA TYPOLOGY COLLOCATED SEMS SERVER - MACDONALD HUMFREY

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7. ASL SEMS SERVER TO BE LOCATED IN THE TSA IT ROOM. PROVIDE 2 CAT 6 DATA CABLES FROM ASL SEMS SERVER TO THE TSA IT CABINET FOR FUTURE USE.
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10. AUTOMATIC WAIT TIME INFRASTRUCTURE SHALL BE INSTALLED BASED ON THE OEM REQUIREMENTS AS SELECTED BY THE AIRPORT AUTHORITY.
5. AVS DATA LINES FROM THE REAR XRAY OUTLET MAY ROUTE THRU THE IT ROOM IF NECESSARY.

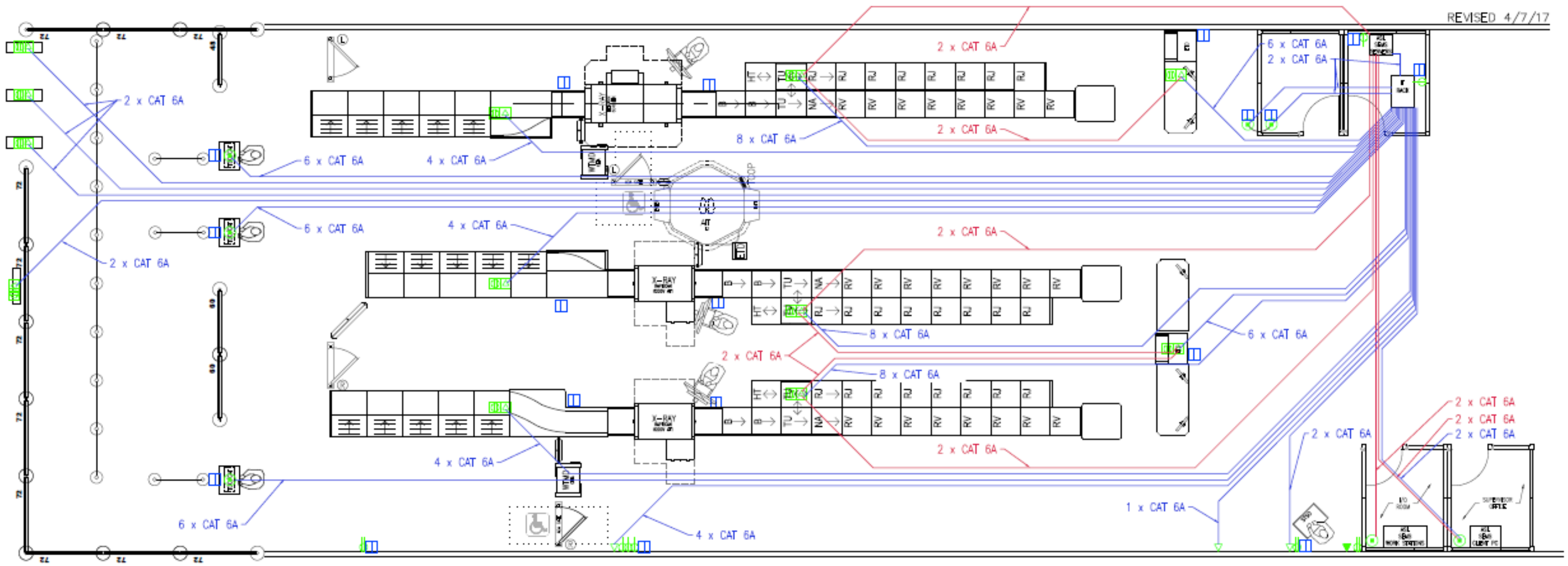


Figure 19

1-3.6.4 STANDARD DATA TYPOLOGY CENTRALIZED SEMS SERVER - MACDONALD HUMFREY

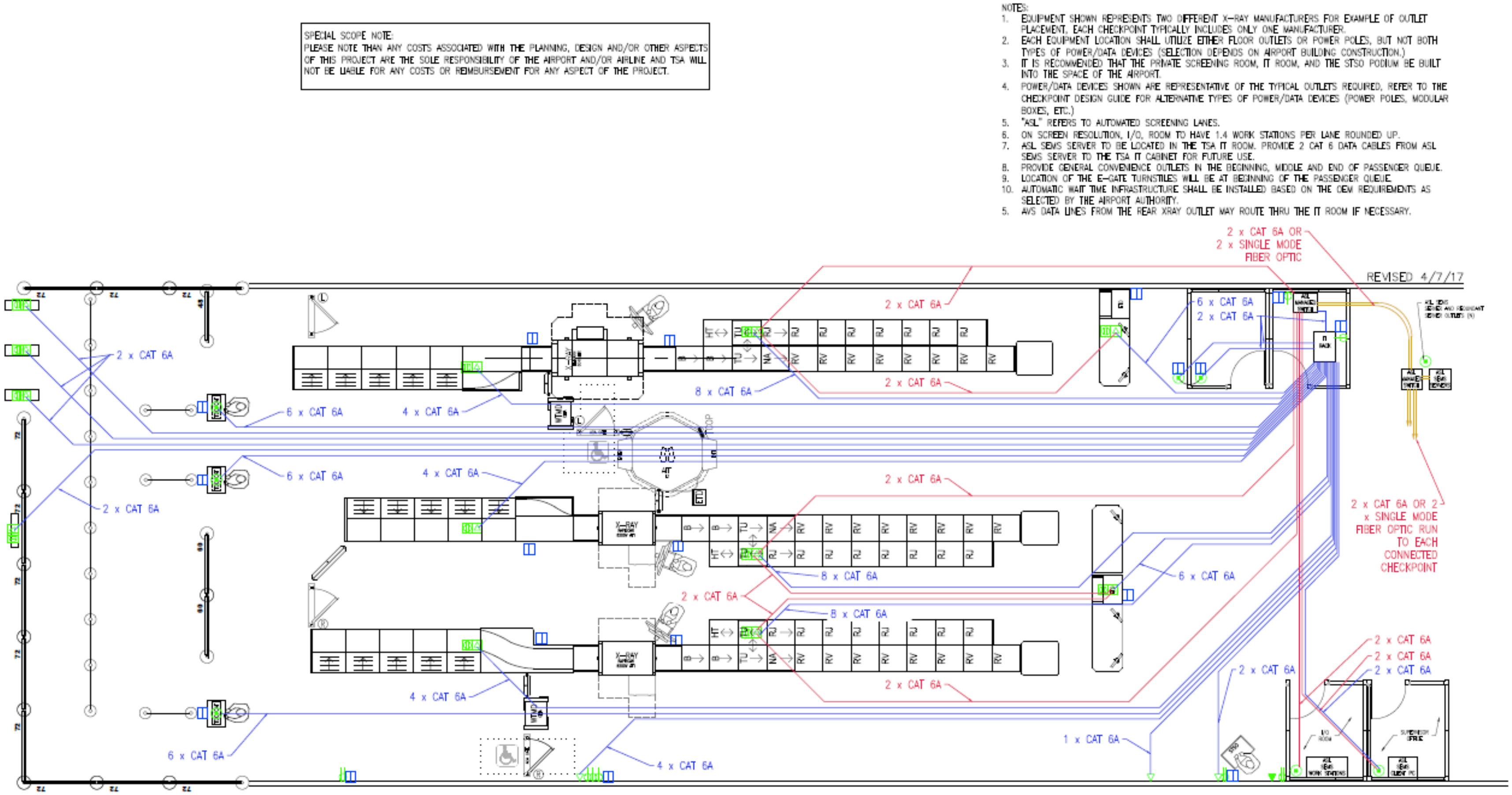
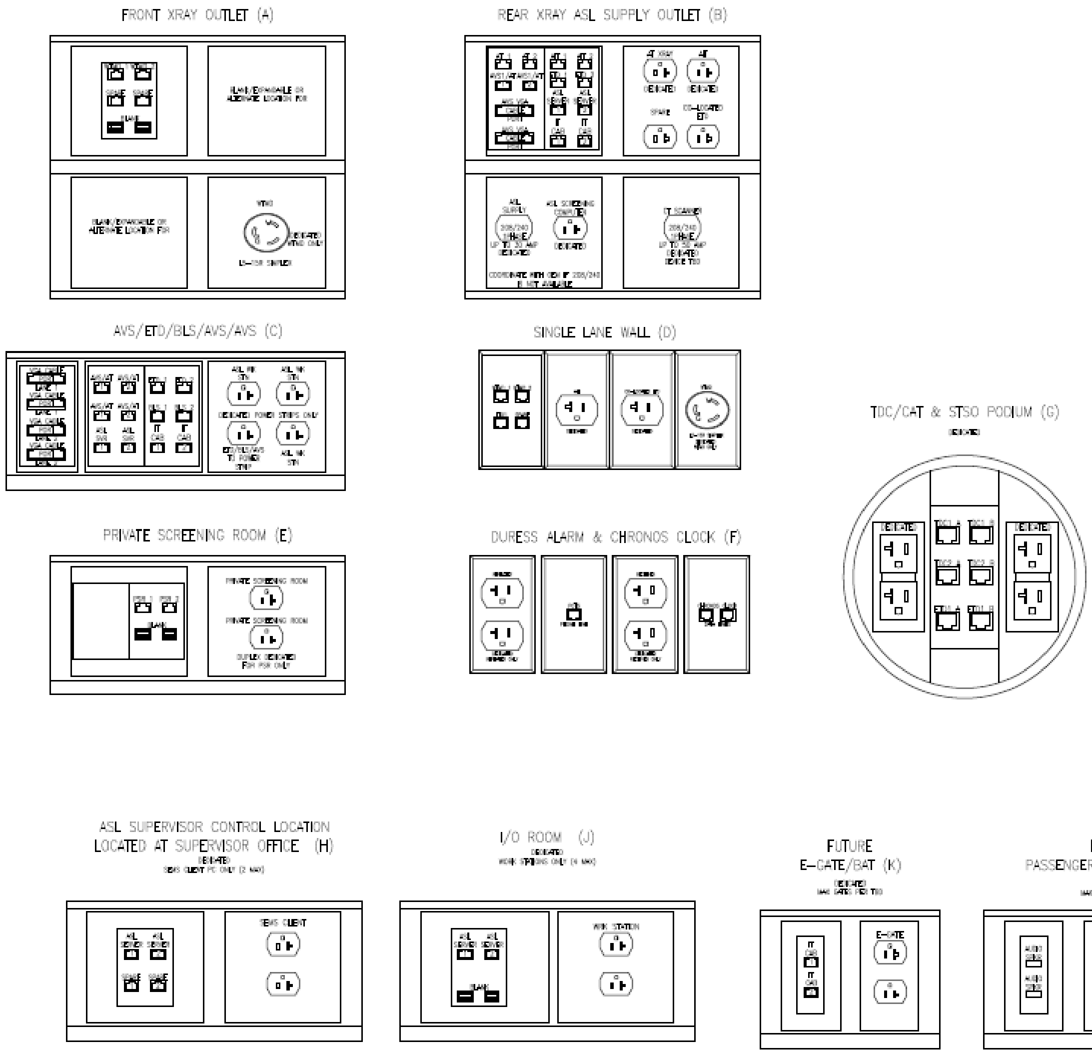


Figure 20

1-3.6.5 STANDARD ELECTRICAL INFRASTRUCTURE DEVICES – VANDERLANDE INDUSTRIES



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AT X-RAY	1	PROVIDE SIMPLEX RECEPTACLE
CT SCANNER	1	RECEPTACLE TO BE DETERMINED, PROVIDE DEDICATED 208/240 1PHASE UP TO 50AMP
ASL Supply	1	DEDICATED 208/240 1PHASE 30AMP
ASL SCREENING COMPUTER	1	1 20A CIRCUIT PER LANE
AIT	1	PROVIDE SIMPLEX RECEPTACLE DEDICATED AT EACH LANE
CO-LOCATED ETD	2	
AVS/AVS/ETD/BLS/AVS	1 SHARED LOCATION/ DEDICATED	OUTLET(S) POWERS RELOCATEABLE POWER TAP/ PROVIDE 2 20AMP CIRCUITS
PRIVATE SCREENING ROOM	1	ONE OUTLET INSIDE AND ONE OUTLET OUTSIDE OF PRIVATE SCREENING ROOM
STSO PODIUM	1	PROVIDE DUPLEX OUTLET
IT CABINET	1	30A L5-30R RECEPTACLE
ASL SEMS SERVER	1	30A DEDICATED
DURESS ALARM RECEIVER PANEL	2	CIRCUITS SHARED CAN BE MORE THAN TWO THROUGHOUT CHECKPOINT BUT ONLY CAN INSTALL TWO REPEATERS PER DUPLEX
DURESS ALARM REPEATER PANEL	2	CIRCUITS SHARED CAN BE MORE THAN TWO THROUGHOUT CHECKPOINT BUT ONLY CAN INSTALL TWO PER DUPLEX
E-GATE/BATT	TBD	TBD
PASSENGER PREP/AVATAR	TBD	TBD
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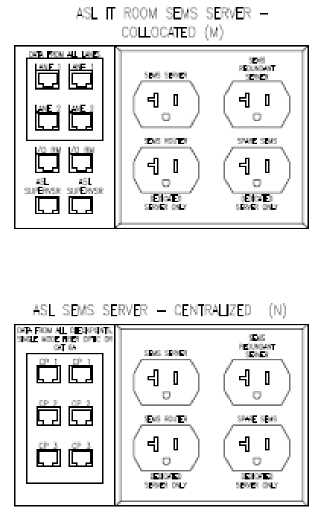


Figure 21

1-3.6.6 STANDARD ELECTRICAL INFRASTRUCTURE LAYOUT – VANDERLANDE INDUSTRIES

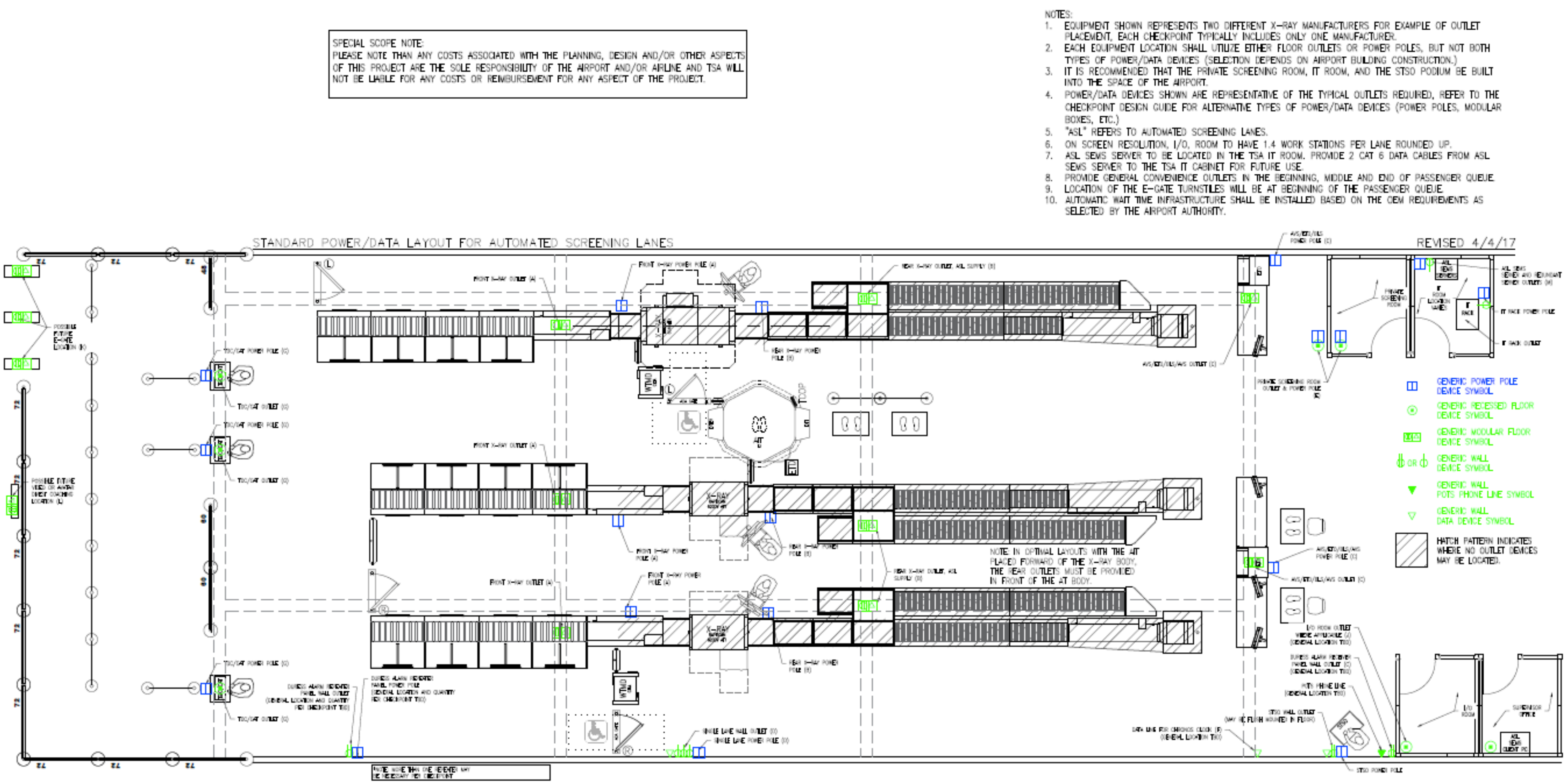


Figure 22

1-3.6.7 STANDARD DATA TYPOLOGY COLLOCATED SEMS SERVER – VANDERLANDE INDUSTRIES

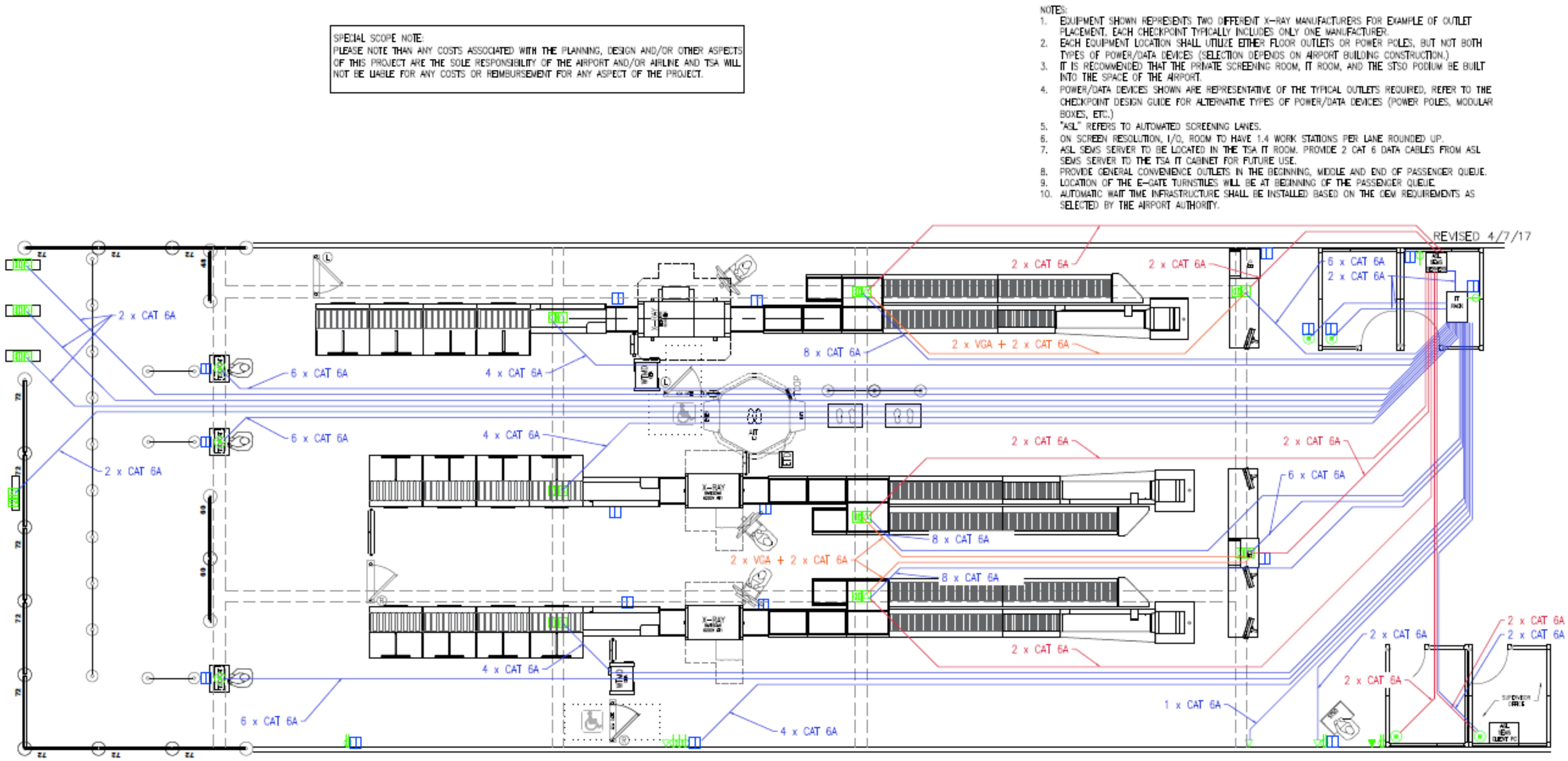


Figure 23

1-3.6.8 STANDARD DATA TYPOLOGY CENTRALIZED SEMS SERVER – VANDERLANDE INDUSTRIES

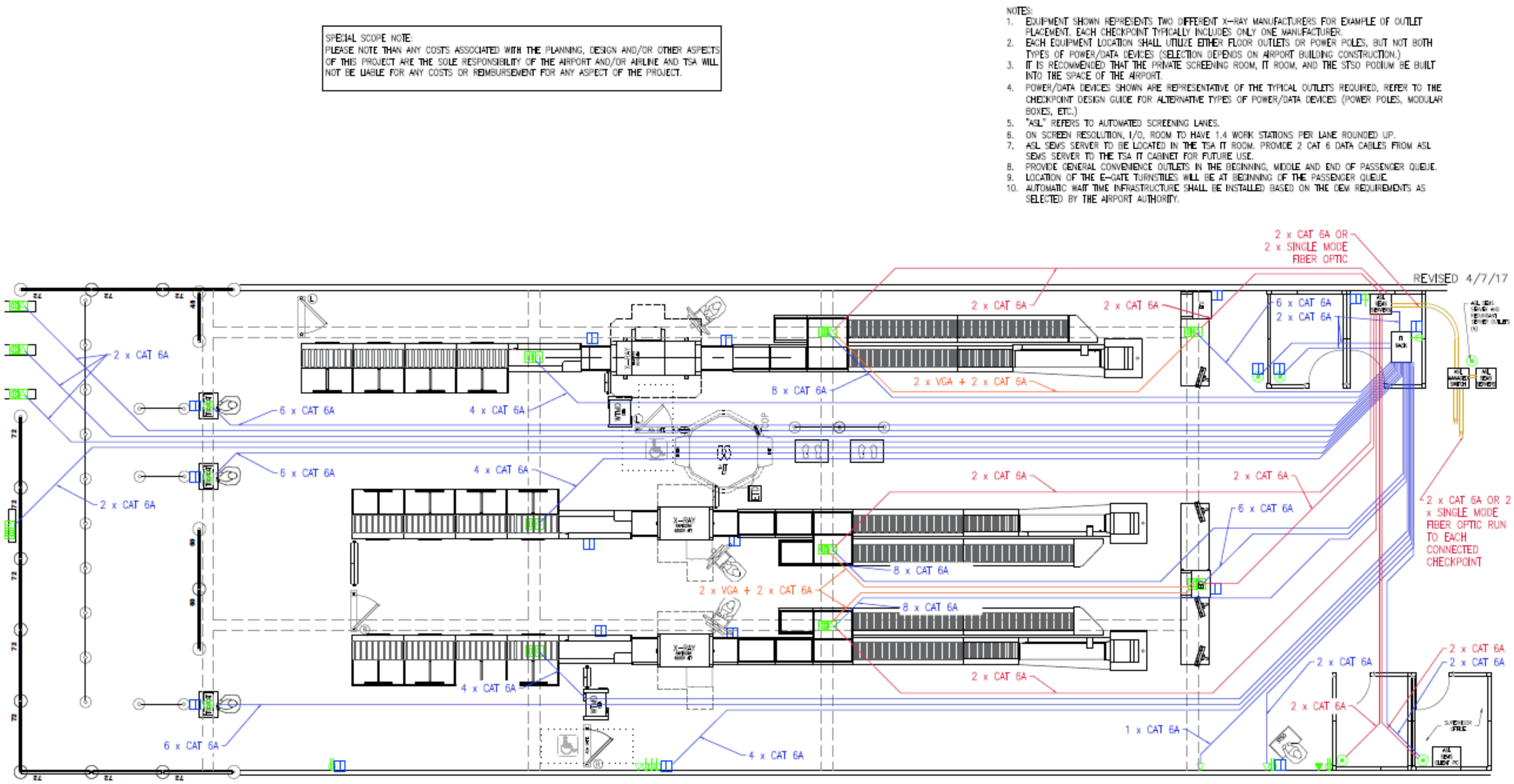
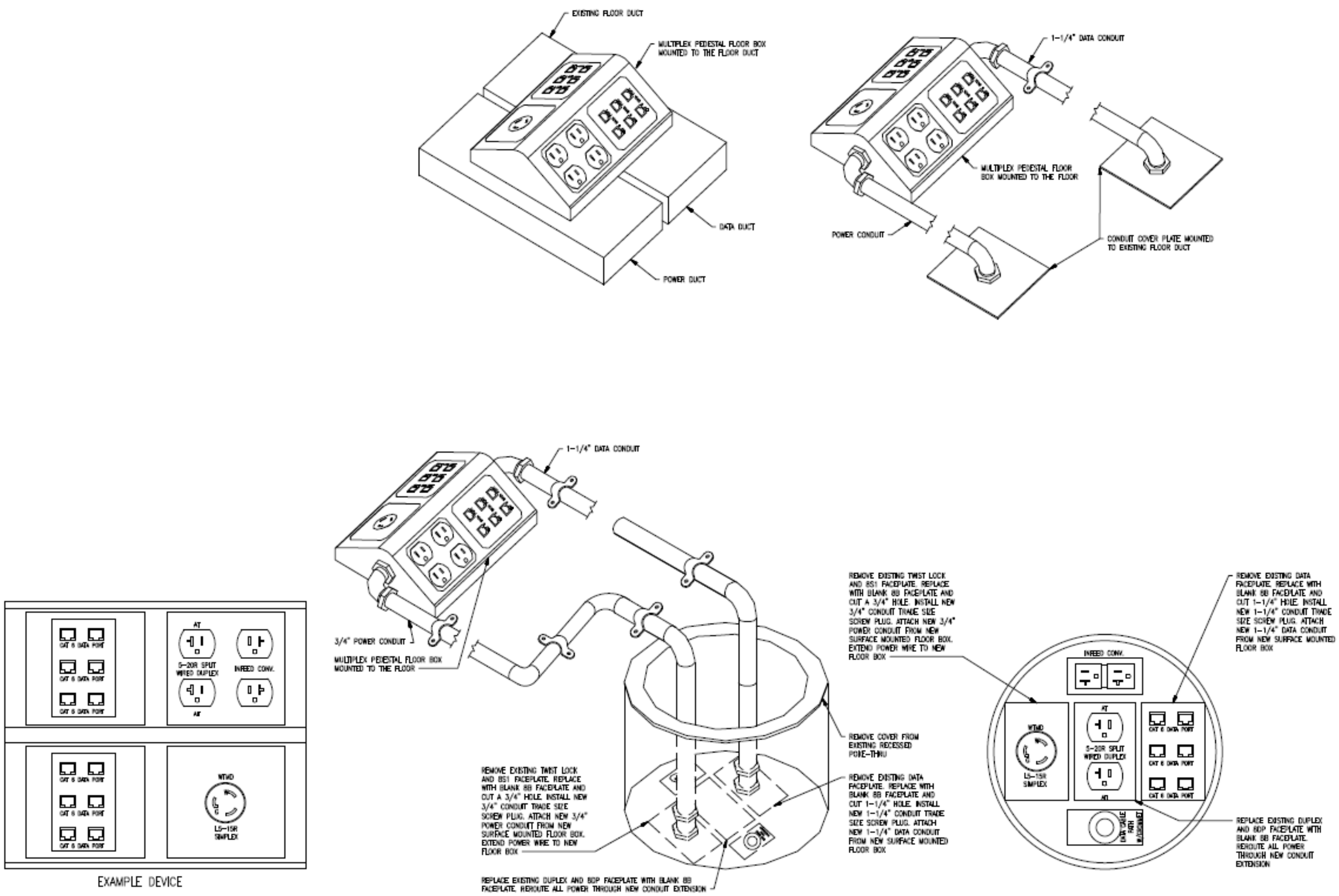


Figure 24

1-3.6.9 STANDARD ELECTRICAL INFRASTRUCTURE LAYOUT – POWER AND DATA STANCHION

Figure 25

1-3.6.10 STANDARD ELECTRICAL INFRASTRUCTURE LAYOUT – SURFACE MOUNTED CONDUIT AND DEVICES



SPECIAL NOTE:
SURFACE MOUNTING OF ELECTRICAL CONDUIT IS TO BE USED ONLY WERE RELOCATING FLOOR PENETRATIONS IS NOT FEASIBLE YET REQUIRED DUE TO THE LOCATIONS OF TSE. CONDUIT AND SURFACE MOUNTED DEVICES ARE TO BE COMPLETELY UNDER THE EQUIPMENT AND NOT EXPOSED TO FOOT TRAFFIC.

Figure 26

1-4 ANCILLARY TSA SPACES

1-4.1 ANCILLARY TSA SPACES

When designing a new checkpoint, it is important to take into account the ancillary spaces required for TSA to accomplish its mission. Ancillary spaces include but are not limited to the Private Screening Room (PSR), IT room, Remote Resolution Room, TSO training room, and TSO break room and offices.

1-4.2 SUPERVISOR PODIUMS

Supervisor podiums have the highest functionality when they are built into the back of the checkpoint. It is recommended that the finishes of the podium blend with the terminal and checkpoint construction. The floor of the podium is optimum for security when raised up 18" from the level of the checkpoint. The podiums can be built on top of existing construction with lightweight wood construction. It should include a screen wall facing the checkpoint with a built-in computer counter. Power and data requirements must be reviewed for each case.

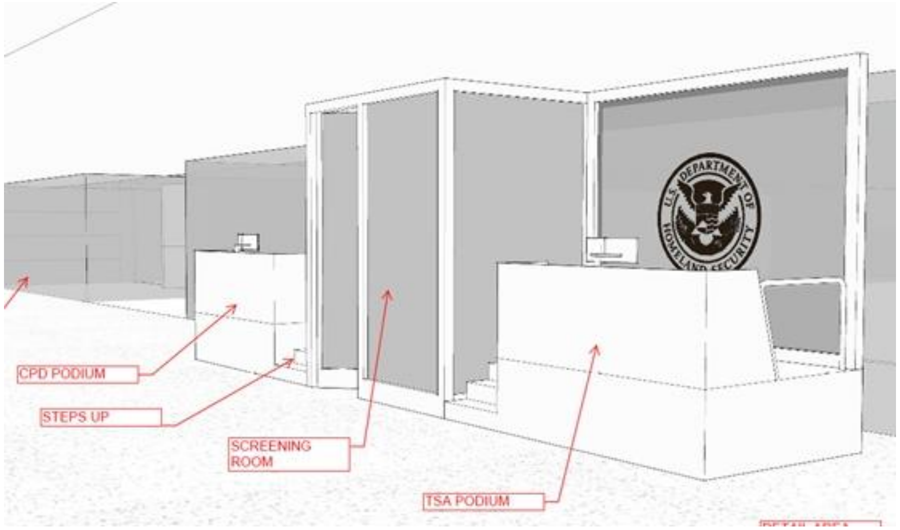


Figure 27

1-4.3 PRIVATE SCREENING ROOM

The next generation of private screening will change the current room requirements. The standard size of private screening will increase from 8'x6' to a minimum of 8'x8' and a preferred size of 8'x12'. The intent is to have code compliant accessibility and a semi-permanent work surface for screening. Currently, lighting and proper HVAC is an issue and will have to be addressed with future PSR installation and new installations. Where possible, the PSR shall be a built-in room adjacent or immediately adjacent to the checkpoint. Built-in PSRs shall meet all local and national code requirements; rooms provided by airports not originally purposed for general public use shall be improved prior to use as a PSR. The local TSA is responsible to ensure all private screening rooms have a mirror that must be made available for passengers subjected to secondary screening of head wear. Passengers will be offered a mirror for re-donning of head wear and similar apparel. Four options for private screening rooms will be allowed under the updated Checkpoint Design Guide (CDG) and are as listed below:

1. Built-in
2. Retractable rigid panel rooms
3. Expandable curtain
4. Ceiling mount curtains

Figure 28

1-5 CHECKPOINT CONCEPT EXAMPLES

Below are examples of current checkpoint designs used at airports across the world.

Figure 29

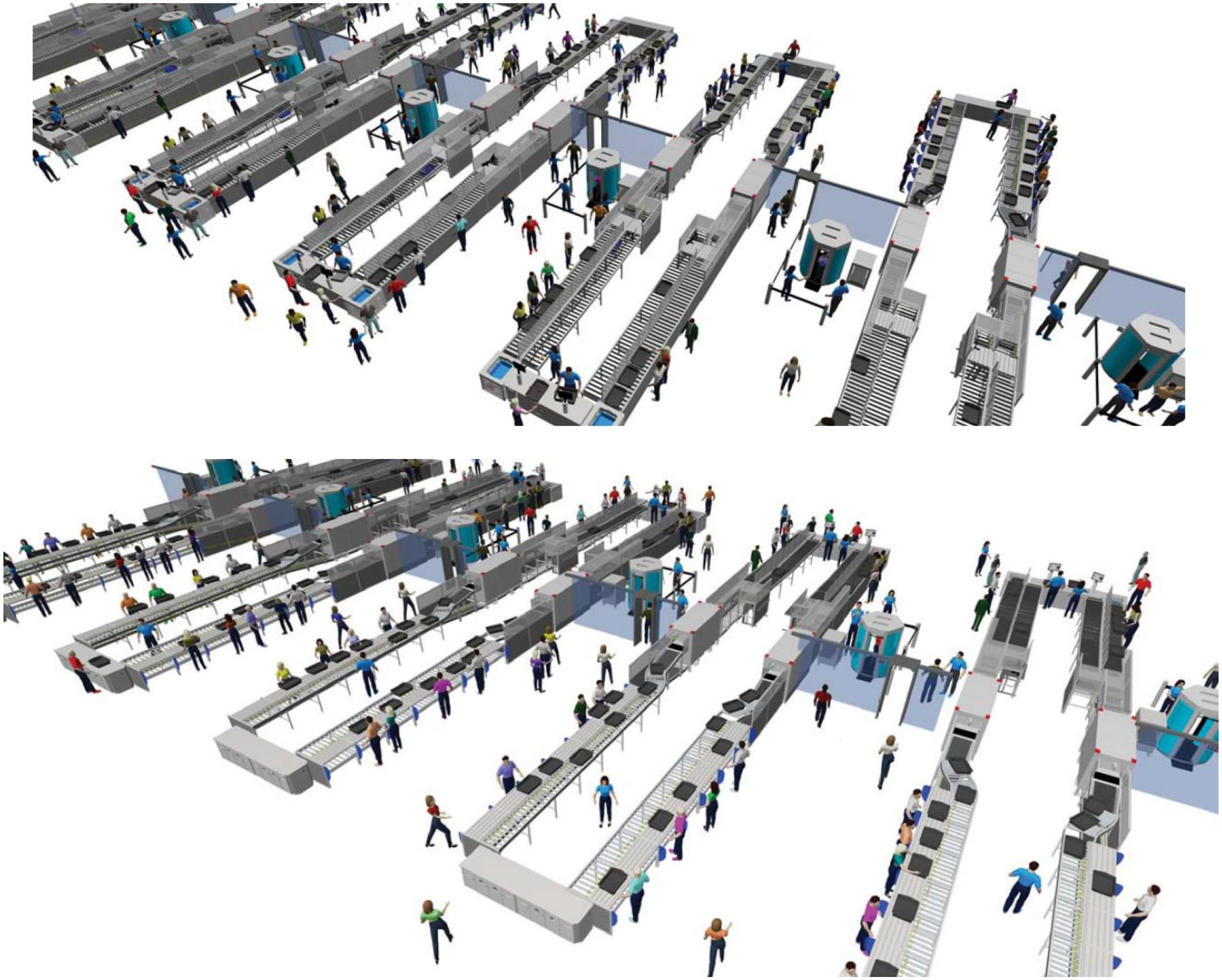


Figure 30

Figure 31