Aquilion RXL

DRAWING CONTENTS

TOSHIBA
Leading Innovation

REV	DATE	REVISED SHEET(S)	INT

HARRISBURG HOSPITAL

(AQUILION – RXL)

111 S FRONT ST
HARRISBURG, PA 17101

DATE: 06–19–13

SCALE: NOT TO SCALE

PLANNER: C.B.S.

QUOTE: N/A

PROJECT NO.
130013698CTF

C1

MINIMUM SITE REQUIREMENTS CHECKLIST

PROJECT:		SITE INSPECTION DATE:
EQUIPMENT DELIVERY DATE:		INSPECTED BY:
IN ORDER TO ENSURE A TIMELY AND SUCCESSFUL INSTALLATION, IT IS NECESSARY TO COMPLETE THIS FORM PRIOR TO INSTALLATION. PLEASE ASSIST TOSHIBA BY HAVING THE CONTRACTOR OR YOUR REPRESENTATIVE COMPLETE THE FOLLOWING:		
	1.	ALL WALLS, FLOORS, AND CEILINGS FINISHED. WALLS PAINTED, FLOORS TILED, AND CEILING GRID WORK AND FIXTURES INSTALLED.
	2.	MONOLITHIC OR LAY–IN CEILING? PLEASE CIRCLE ONE.
	3.	DOORS AND WINDOWS (INCLUDING ALL LEADED DOORS AND GLASS) INSTALLED AND LOCKABLE. DOORS TO BE REMOVED PRIOR TO DELIVERY BY CUSTOMER OR CONTRACTOR AND REINSTALLED AFTER EQUIPMENT MOVE–IN. RESERVE SECURE ROOM FOR STORAGE DURING INSTALLATION.
	4.	AREA SET ASIDE FOR EQUIPMENT RIGGING AND MOVE–IN. ENVIRONMENTAL ISSUES ADDRESSED AND RESOLVED PRIOR TO EQUIPMENT DELIVERY (I.E. SURGICAL SUITE).
	5.	EQUIPMENT (INGRESS) ROUTES ARE CLEAR AND OBSTACLE FREE.
	6.	ALL CONDUIT, TROUGHING (WITH COVERS), AND BOXES INSTALLED (CLEAN AND DUST FREE). GROMMETED OPENINGS, CHASE NIPPLES, RACEWAY DIVIDERS, ETC. COMPLETE.
	7.	CIRCUIT BREAKER INSTALLED AND INCOMING POWER (PER POWER QUALITY REQUIREMENTS) OPERATIONAL AND CONNECTED TO ROOM BREAKER(S).
	8.	LOCATION OF ALL ELECTRICAL BREAKERS IN POWER CHAIN NOTED.
	9.	ALL CONTRACTOR–INSTALLED STRUCTURAL SUPPORT DEVICES INSTALLED AND LEVELED ACCORDING TO T.A.M.S. SPECIFICATIONS ON SITE PLANS.
	10.	ROOM LIGHTING INSTALLED AND OPERATIONAL.
	11.	ENSURE THAT LIGHTING/SPRINKLER HEADS PRESENT NO CONFLICT WITH UNITS MOUNTED TO THE CEILING.
	12.	ENSURE THAT NON–TOSHIBA SUPPLIED EQUIPMENT PRESENT NO CONFLICT WITH UNITS MOUNTED TO THE CEILING.
	13.	110V ROOM OUTLETS OPERATIONAL.
	14.	ALL CONTRACTOR–SUPPLIED CABLES PULLED AND TERMINATED, INCLUDING GROUND WIRE AND GROUND BUS BAR IN TROUGHING AS SPECIFIED IN THE TOSHIBA SITE PLANS.
	15.	INTERFACE FOR DIMMING OF ROOM LIGHTS (IF APPLICABLE), WARNING LIGHTS AND DOOR SWITCHES INSTALLED AND INTERFACE AVAILABLE AND CONNECTED (RELAYS, ETC.).
	16.	DUST–FREE ENVIRONMENT IN ALL RELATED ROOMS.
	17.	HEATING AND AIR–CONDITIONING INSTALLED, OPERATIONAL, AND STABILIZED PER TOSHIBA SITE PLANS. FILTERS TO BE CHANGED 24 HOURS BEFORE DELIVERY.
	18.	ALL MILLWORK COMPLETE AND INSTALLED.
	19.	PLUMBING COMPLETED (INCLUDING GASES, IF APPLICABLE) ACCORDING TO TOSHIBA SPECIFICATIONS ON SITE PLANS.
	20.	OPTIONAL COMPUTER FLOORING INSTALLED, IF APPLICABLE.
	21.	THIRD PARTY VENDED ITEMS SUCH AS PROCESSORS, FILM CHANGERS, INJECTORS, GAS PEDESTALS, PHYSIOLOGICAL MONITORING EQUIPMENT, ETC., INSTALLED AND OPERATIONAL.
	22.	TELEPHONE LINES (VOICE AND OPTIONAL MODEM) INSTALLED AND OPERATIONAL. A DEDICATED PHONE LINE IS REQUIRED FOR SITES THAT ARE RECEIVING INNERVISION.
	23.	ALL UNFINISHED AREAS SEALED OFF TO PREVENT DUST CONTAMINATION.
	24.	RECEPTACLE FOR TRASH AVAILABLE (LARGE ENOUGH FOR SHIPPING CRATES IF REQUIRED).
	25.	SUB BASE PLATE(S) INSTALLED (IF REQUIRED).
	26.	"PD" / "UPS" / "PCDU" INSTALLED AND OPERATIONAL (IF APPLICABLE).
	27.	SEISMIC REQUIREMENTS, AND REQUIRED SEISMIC ANCHORING DEVICES INSTALLED (IF APPLICABLE).
	28.	NETWORK CONNECTIONS INSTALLED AND OPERATIONAL.
	29.	ALL APPLICABLE PERMITS OBTAINED.

NOTICE:
CUSTOMER MUST COMPLETE ALL ITEMS ON THIS CHECKLIST BEFORE SCHEDULED DELIVERY DATE FOR THE EQUIPMENT. IF CUSTOMER FAILS TO DO SO, DELIVERY MAY BE DELAYED. FURTHERMORE, THE EQUIPMENT WARRANTY MAY BE VOIDED.

COMMENTS:	
SIGNED TOSHIBA:	
CONTRACTOR:	
CUSTOMER:	

02–13–13

GENERAL NOTES

CUSTOMER / CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING UNLESS OTHERWISE NOTED.

GENERAL

A. TOSHIBA RESERVES THE RIGHT TO CHANGE THESE DESIGNS AND SPECIFICATIONS WITHOUT NOTICE.

B. THE CUSTOMER/CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES AND ORDINANCES ARE COMPLIED WITH.

C. PRIOR TO EQUIPMENT DELIVERY AND INSTALLATION, THE SITE MUST BE 100% COMPLETE, CLEAN AND FREE OF DUST. CUSTOMER/CONTRACTOR AND TOSHIBA INSTALLATION PROJECT MANAGER MUST COMPLETE A SITE WALK THROUGH 1 WEEK PRIOR TO DELIVERY AND DETERMINE ACCEPTABILITY FOR DELIVERY.

D. ANY CABINETRY THAT MAY BE REQUIRED TO HOUSE VIDEO RECORDERS, MONITORS KEYBOARDS, OR OTHER ANCILLARY EQUIPMENT SHALL BE SUPPLIED AND INSTALLED BY CUSTOMER/CONTRACTOR.

E. PROVIDE ADEQUATE VENTILATION WITHIN CABINETRY AND INSTALL AXIAL FANS ON THE TOP, SIDE, OR BACK OF CABINETS, IF REQUIRED.

F. THESE TOSHIBA SITE PLANS DO NOT INDICATE EQUIPMENT REQUIREMENTS FOR ITEMS NOT SOLD BY TOSHIBA SUCH AS, PHYSIOLOGICAL MONITORS, LASER CAMERAS, INJECTORS, ETC. SPECIFICATIONS FOR THOSE ITEMS MUST BE OBTAINED FROM THE VENDOR AND INCLUDED IN THE DESIGN TOTALS.

G. DESIGN, FABRICATE, AND INSTALL MEDICAL GAS PEDESTAL, IF REQUIRED. CONSULT WITH TOSHIBA INSTALLATION PROJECT MANAGER FOR SUITABLE LOCATIONS.

H. CUSTOMER/CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AN OPERATING PHONE IN THE CONTROL ROOM AT THE TIME TOSHIBA EQUIPMENT INSTALLATION BEGINS.

I. CUSTOMER/CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE LIGHTING FOR SERVICING OF EQUIPMENT IN ALL AREAS OF THE INSTALLATION.

J. THE CUSTOMER/CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL COSTS REQUIRED FOR THE ENGINEERING AND/OR REMOVAL OF ANY HAZARDOUS MATERIALS SUCH AS ASBESTOS.

K. CUSTOMER/CONTRACTOR SHALL SUPPLY AND INSTALL MATERIALS AND OTHER FEATURES SPECIFIED IN THE TOSHIBA SITE PLANS. CUSTOMER/CONTRACTOR SHALL SUPPLY AND INSTALL ALL COUNTERTOPS, SINKS, CASE WORK AND CABINETS SPECIFIED IN THE TOSHIBA SITE PLANS.

PLUMBING

L. PLUMBING IS NOT REQUIRED FOR THIS TOSHIBA EQUIPMENT.

M. IT IS RECOMMENDED THAT A SINK BE PROVIDED FOR USE BY PERSONNEL.

SITE CONDITIONS

N. DIMENSIONS TO WALLS AND OR OTHER ROOM FEATURES, EXCEPT FOR NOTED COLUMN AND BEAM CENTER LINES SHALL BE FROM FINISHED SURFACES.

O. CT GANTRY SHOULD NOT BE INSTALLED WITHIN 0.5 MAGNETIC GAUSS FIELD.

P. THE WINDOW FOR MONITORING THE SCAN ROOM SHOULD BE IN FRONT OF OR ON THE SIDE OF THE CONSOLE DESK. THE LOWEST WINDOW FRAME SHOULD BE 36" ABOVE THE FLOOR FOR EASY PATIENT MONITORING.

Q. A DOOR BETWEEN THE SCAN AND CONTROL ROOM IS RECOMMENDED.

R. THE INSTALLATION ALTITUDE SHOULD BE NO MORE THAN 3,280 FT. (1,000 M) ABOVE SEA LEVEL. PRIOR CONSULTATION IS REQUIRED FOR INSTALLATIONS HIGHER THAN 3,280 FT. (1,000 M).

NETWORKING REQUIREMENTS

S. NETWORK REQUIREMENTS WILL VARY BY SITE. TOSHIBA REPRESENTATIVE WILL REQUIRE DICOM DEVICE INFORMATION. ADDITIONAL I.P. ADDRESSES, AND I.T. DEPARTMENT CONTACT INFORMATION PRIOR TO INSTALLATION.

TRANSPORT REQUIREMENTS

T. EQUIPMENT INGRESS ROUTE MUST BE CHECKED PRIOR TO EQUIPMENT DELIVERY TO ENSURE THE LARGEST AND HEAVIEST ITEMS OF EQUIPMENT CAN BE ACCOMMODATED, PRIOR TO EQUIPMENT DELIVERY. DIMENSIONS OF DOORWAYS SHOULD BE NO LESS THAN 4'–0" CLEAR IN WIDTH. CONTACT THE TOSHIBA INSTALLATION PROJECT MANAGER FOR DETAILS PERTAINING TO THE LARGEST AND HEAVIEST COMPONENTS FOR THIS INSTALLATION (SEE DETAIL 4, SHEET GN2).

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STRUCTURAL NOTES

CUSTOMER / CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING UNLESS OTHERWISE NOTED.

A. THESE SITE PLANS ARE INTENDED TO DEPICT ONLY A CONCEPT OF THE STRUCTURE REQUIRED FOR THE TOSHIBA EQUIPMENT. THE DESIGN OF ALL STRUCTURAL ELEMENTS MUST BE SPECIFIED BY A LICENSED STRUCTURAL ENGINEER IN ACCORDANCE WITH TOSHIBA SPECIFICATIONS AND ALL APPLICABLE CODES.

B. THE CUSTOMER/CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND PROPOSED DIMENSIONS AND SITE CONDITIONS PRIOR TO COMMENCING CONSTRUCTION.

C. THE TOSHIBA INSTALLATION PROJECT MANAGER SHALL BE NOTIFIED IN WRITING OF ANY FIELD CONDITIONS ENCOUNTERED THAT ARE CONTRADICTORY TO THOSE SHOWN IN THE TOSHIBA SITE PLANS.

D. THE DEMOLITION, FABRICATION, AND ERECTION OF SUPPORT STRUCTURES FOR TOSHIBA EQUIPMENT SHALL BE PERFORMED BY THE CUSTOMER/CONTRACTOR IN ACCORDANCE WITH THE DESIGN AND SPECIFICATIONS SET FORTH BY THE STRUCTURAL ENGINEER OF RECORD.

E. DUE TO THE DYNAMIC NATURE OF THE LOAD, BOTH HORIZONTAL AND VERTICAL ACCELERATION SHOULD BE INCLUDED IN THE DESIGN CALCULATIONS FOR THE SUPPORT STRUCTURE AS WELL AS ANCHORING AND THRU–BOLTING FOR THE TOSHIBA EQUIPMENT.

F. IN THE INTEREST OF SAFETY, TOSHIBA RESERVES THE RIGHT TO DELAY INSTALLATION COMMENCEMENT UNTIL STRUCTURAL DESIGN DRAWINGS STAMPED BY THE STRUCTURAL ENGINEER OF RECORD HAVE BEEN PROVIDED.

G. UNDER NO CIRCUMSTANCE SHOULD THE TOSHIBA EQUIPMENT BE INSTALLED ON A WOOD FLOOR.

CEILING STRUCTURAL SYSTEMS

H. IN ORDER TO AVOID COLLISION WITH MOVEABLE TOSHIBA CEILING MOUNTED EQUIPMENT, ALL CEILING FIXTURES SUCH AS LAMPS, SMOKE DETECTORS, SPRINKLERS, ETC. MUST BE FLUSH MOUNTED (SEE DETAIL 3, SHEET GN2).

UNISTRUT NOTES

I. CEILING UNISTRUT SUPPORT STRUCTURES TO BE DESIGNED BY OTHERS BASED ON SPECIFICATIONS SHOWN ON TOSHIBA SITE PLANS (IF APPLICABLE).

J. UNISTRUT OR EQUIVALENT CHANNEL SUPPORT SYSTEM TO BE SUPPLIED AND INSTALLED BY CUSTOMER/CONTRACTOR (IF APPLICABLE).

K. UNISTRUT ARE TO BE P1001 OR P5001 OR EQUIVALENT, MOUNTED FLUSH WITH FINISHED CEILING. ALL UNISTRUT ARE TO BE MOUNTED PARALLEL AND LEVEL WITH A MAXIMUM DEVIATION OF 1/16". UNISTRUT IS TO BE CAPABLE OF SUPPORTING LOAD REQUIREMENTS OF TOSHIBA EQUIPMENT. UNISTRUT LOAD REQUIREMENTS AND DESIGN ARE THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER OF RECORD.

02–13–13

SPECIAL NOTES

SPECIAL SEISMIC CERTIFICATION

A. THE FOLLOWING COMPONENTS HAVE SPECIAL SEISMIC CERTIFICATION:

A.A. OSP–0174–10
GANTRY
AQUILION ONE 640 SERIES: CGGT–024A/1A
AQUILION PREMIUM 320 SERIES: CGGT–024A/1B
AQUILION PRIME 80/160 SERIES: CGGT–027A/1A
AQUILION LB: CGGT–020A/1C
AQUILION CX: CGGT–024A/1B
AQUILION 64: CGGT–021A/1A
AQUILION 32: CGGT–021A/2A
AQUILION RXL: CGGT–018B/1A
AQUILION 16/8/4: CGGT–018A/1C
PATIENT COUCH
AQUILION ONE/PREMIUM: CBTB–021A/1A (STANDARD), CBTB–021B/1A (COMPACT)
AQUILION CX: CBTB–023A/1A (STANDARD)
AQUILION PRIME 80/160: CBTB–026A/1A (STANDARD), CBTB–026B/1A (COMPACT)
LATERAL SHIFT KIT: CALU–001A/1C (OPTIONAL)
AQUILION LB STANDARD: CBTB–020A/1A
AQUILION LB COMPACT: CBTB–020B/1A
AQUILION 64/32: CBTB–019A (STANDARD), CBTB–019B (COMPACT)
AQUILION RXL: CBTB–028A/1A (STANDARD), CBTB–028B/1A (COMPACT)
AQUILION 16/8/4: CBTB–016A/1A (STANDARD), CBTB–016B (COMPACT)
POWER DISTRIBUTOR
AQUILION ONE/PREMIUM: CETF–006A/2A
AQUILION PRIME: CETF–006A/3A
AQUILION RXL: CETF–006A/6A
RECONSTRUCTION UNIT(S) & CPU
AQUILION ONE: CKCN–015A/1A
AQUILION PREMIUM: CKCN–015A/2A
AQUILION PRIME: CKCN–016A/2A
AQUILION LB: CKCN–012C/5A
AQUILION CX/64/32: CKCN–012B/5A
AQUILION VELOCT: CKCN–016C/1A
AQUILION RXL: CKCN–016B/4A
AQUILION 16/8/4: CKCN–012C/7A
LCD MONITORS
KEYBOARDS
MOUSE
A.B. OSP–0162–10
PCDU – GROUP 1 ENCLOSURES (AS APPLICABLE)
A.C. OSP–0119–10
G8000 UNINTERRUPTIBLE POWER SUPPLY – G8000 (AS APPLICABLE)
A.D. OSP–0088–10
BAT – BC43 (WHEN PAIRED WITH G8000) (AS APPLICABLE)
BAT – BC55 (WHEN PAIRED WITH 9390) (AS APPLICABLE)
A.E. OSP–0013–10
UPS – 9390 160 KVA (AS APPLICABLE)

B. WEIGHTS SHOWN ON THE OSP DOCUMENTS ARE GENERALLY A MAXIMUM AND THE WEIGHTS SHOWN ON THESE SITE PLANS REFLECT THE EQUIPMENT AS ORDERED.

05–07–13

ELECTRICAL REQUIREMENTS FOR AQUILION

SUPPLY CONFIGURATION: 3 PHASE DELTA OR WYE

SUPPLY VOLTAGE: 480V, 100 AMP, 60 Hz

DISTRIBUTION CAPACITY: 150 KVA

02–13–13

VIBRATION SPECIFICATION

GANTRY
0.98 M/S² (0.1 G) OR LESS

02–13–13

CEILING HEIGHT

RECOMMENDED CEILING HEIGHT: 9'–0"
MINIMUM CEILING HEIGHT: 8'–2 1/2"

02–13–13

ELECTRICAL NOTES

CUSTOMER / CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING UNLESS OTHERWISE NOTED.

A. THESE SITE PLANS ARE INTENDED TO DEPICT ONLY A CONCEPT OF THE ELECTRICAL REQUIREMENTS FOR THE TOSHIBA EQUIPMENT. THE DESIGN OF ALL ELECTRICAL ELEMENTS MUST BE SPECIFIED BY A LICENSED ELECTRICAL ENGINEER IN ACCORDANCE WITH TOSHIBA SPECIFICATION AND ALL APPLICABLE CODES.

B. IN ACCORDANCE WITH NEC ARTICLE 517–72(B), THE EQUIPMENT CIRCUIT BREAKER(S) MUST BE LOCATED SO THAT THEY SHALL BE OPERABLE FROM A LOCATION READILY ACCESSIBLE FROM THE CONTROL AREA. IF THIS IS IMPOSSIBLE OR IMPRACTICAL, THE USE OF A SHUNT TRIP TYPE BREAKER WILL BE NECESSARY TO SATISFY THIS REQUIREMENT. THE EMERGENCY OFF BUTTON FOR THE SHUNT TRIP SHOULD BE LOCATED IN THE CONTROL AREA.

C. THE CUSTOMER/CONTRACTOR SHALL SUPPLY AND INSTALL ALL CIRCUIT BREAKERS, CONDUITS, JUNCTION BOXES, DUCTS, ETC. SPECIFIED HEREIN.

D. THE TOSHIBA SITE PLANS DO NOT SPECIFY ELECTRICAL REQUIREMENTS FOR EQUIPMENT NOT SOLD BY TOSHIBA. THESE REQUIREMENTS MUST BE OBTAINED BY THE VENDOR.

E. TOSHIBA WILL SUPPLY INTERCONNECTING CABLES FOR THE TOSHIBA EQUIPMENT. TOSHIBA WILL INSTALL IF LOCAL TRADE LABOR PERMITS.

F. EXCEPT FOR THEIR USE IN POWER LINE CONNECTIONS TO EQUIPMENT CABINETS, FLEXIBLE CONDUIT SHALL NOT BE USED IN THIS INSTALLATION. ONLY FACTORY CONDUIT ELBOWS SHALL BE USED.

G. DUCT WORK SHALL BE PROVIDED WITH SWEEP ELBOWS.

H. ALL JUNCTION BOXES AND DUCTS THAT PENETRATE THE FLOOR SHALL BE WATERPROOF TYPE AND PROVIDED WITH GASKETED WATERPROOF COVERS. ALL FLOOR JUNCTION BOXES AND DUCT COVERS SHALL BE CAPABLE OF SUPPORTING A CONCENTRATED LOAD OF 200 LBS.

I. GROMMETED OPENINGS ARE SHOWN FOR REFERENCE PURPOSES ONLY. VERIFY SIZE AND LOCATION WITH TOSHIBA REPRESENTATIVE. ALL GROMMETED OPENINGS SHALL HAVE NO SHARP EDGES.

J. ALL CHASE & GROMMETED OPENINGS SHALL HAVE PLASTIC/NYLON BUSHINGS.

K. ALL WALL DUCT WORK SHALL HAVE THE MINIMUM NUMBER OF COMPARTMENTS SPECIFIED IN THE ELECTRICAL DUCT LEGEND (SHEET E1). TRANSITIONS SUCH AS HORIZONTAL TO VERTICAL WALL DUCT OR WALL DUCT TO JUNCTION BOXES MUST BE REVIEWED ON AN INDIVIDUAL BASIS WITH THE INSTALLATION PROJECT MANAGER. LOCAL CODES MAY REQUIRE THE USE OF CROSS–OVER TUNNELS OR OTHER SUCH DEVICES TO MAINTAIN CABLE SEPARATION.

L. ALL DUCT AND CONDUITS SHALL BE ELECTRICALLY BONDED AS A GROUNDING PATH IN ACCORDANCE WITH NEC ARTICLE 517–13(B).

M. CUSTOMER/CONTRACTOR SHALL SUPPLY AND INSTALL GREENLEE NYLON MEASURING PULL STRING OR EQUIVALENT IN ALL CONDUITS AND CLOSED DUCT WORK.

N. CONDUIT RUNS SHOWN ARE FOR REFERENCE ONLY. ALL CONDUIT RUNS MUST TAKE THE SHORTEST MOST DIRECT ROUTE POSSIBLE.

O. CONDUIT RUNS MAY HAVE A MAXIMUM OF (3) 90° BENDS.

P. 110VAC GROUNDED OUTLETS SHALL BE PROVIDED ON WALLS NEAR THE TOSHIBA EQUIPMENT FOR USE DURING EQUIPMENT SERVICE.

Q. CUSTOMER/CONTRACTOR MUST SUPPLY AND INSTALL ALL INCOMING POWER CABLES FROM CIRCUIT BREAKER(S) TO TOSHIBA EQUIPMENT CONNECTION POINT. CABLE TYPE MUST BE MTW MULTI–STRAND COPPER – NO ALUMINUM IS PERMITTED. CABLE SIZE MUST BE IN ACCORDANCE WITH TOSHIBA POWER QUALITY REQUIREMENTS. (SEE SHEET E3).

R. CUSTOMER/CONTRACTOR IS TO SUPPLY AND INSTALL ALL NECESSARY HARDWARE TO ENCLOSE INCOMING POWER CABLES IN FLEXIBLE WATER TIGHT CONDUIT FROM CIRCUIT BREAKER(S) TO TOSHIBA EQUIPMENT CABINET(S).

S. ANY CHANGES IN THE LOCATION OR TYPE OF CONDUIT, DUCT WORK, JUNCTION BOXES, ETC. MUST BE SUBMITTED IN WRITING TO THE TOSHIBA INSTALLATION PROJECT MANAGER FOR APPROVAL.

T. A SEPARATE CIRCUIT, FED FROM THE FACILITY RADIOLOGY PANEL OR A MAIN SERVICE PANEL IS REQUIRED. USE OF A SUB PANEL WITH LOADS SUCH AS ELEVATORS, HVAC, MOTORS, ETC. IS NOT PERMITTED.

U. ALL DUCT WORK MAKING A 90° ANGLE MUST BE CHAMFERED FOR CABLE ACCESS.

V. JUNCTION BOX SIZES SPECIFIED ON SHEET E1 MAY BE INCREASED AS NEEDED.

W. FIBER OPTIC CABLES REQUIRE A MINIMUM RADIUS OF 4 1/2". DUCT WORK DESIGN MUST ACCOMMODATE THIS REQUIREMENT.

04–09–13

TOSHIBA POWER & ENVIRONMENTAL QUALITY NOTIFICATION / ASSESSMENT

A. FOR YOUR SYSTEM TO PERFORM TO THE RELIABILITY AND QUALITY STANDARDS YOU EXPECT FROM TOSHIBA, IT IS CRUCIAL THAT THE ENVIRONMENT IN WHICH THE SYSTEM IS OPERATING MEET THE REQUIREMENTS STATED WITHIN THE TOSHIBA PUBLISHED SPECIFICATIONS AS DOCUMENTED IN YOUR TOSHIBA SITE PLAN. TO ENSURE QUALITY PERFORMANCE, TOSHIBA, WITH NO COST TO YOU, WILL CHECK THE TEMPERATURE, HUMIDITY, AND INCOMING POWER OF YOUR SITE PRIOR TO AND AFTER THE INSTALLATION OF TOSHIBA EQUIPMENT. TOSHIBA WILL PROVIDE A WRITTEN REPORT DETAILING THE STATUS OF YOUR SITE'S ENVIRONMENT AND INCOMING POWER. SHOULD ANY FAILURE TO MEET TOSHIBA'S SPECIFICATIONS BE IDENTIFIED PRE AND POST INSTALLATION, THE FACILITY WILL BE REQUIRED TO CORRECT THEM TO MEET TOSHIBA PUBLISHED SPECIFICATIONS. TOSHIBA WILL PROVIDE GUIDANCE TO DEVELOP SOLUTIONS TO ANY DEFICIENCIES TO THE ENVIRONMENT OR INCOMING POWER. HOWEVER, YOU ARE RESPONSIBLE FOR CORRECTING SUCH DEFICIENCIES, AT NO COST TO TOSHIBA. FAILURE TO CORRECT ANY KNOWN OR DISCOVERED DEFICIENCIES MAY RESULT IN SYSTEM REPAIRS THAT ARE NOT COVERED BY YOUR WARRANTY OR SERVICE CONTRACT.

04–09–13

TOSHIBA
Leading Innovation »»

REV	DATE	DESCRIPTION	INT

FOR REFERENCE ONLY. NOT TO BE USED FOR CONSTRUCTION PURPOSES.

HARRISBURG HOSPITAL
(AQUILION – RXL)
111 S FRONT ST
HARRISBURG, PA 17101

THESE TOSHIBA PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND SHALL NOT BE USED FOR ANY PURPOSE OTHER THAN THAT AGREED UPON BETWEEN TOSHIBA AND THE CUSTOMER. THESE SITE PLANS ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES.

DATE: 06–19–13

SCALE: NOT TO SCALE

PLANNER: C.B.S.

QUOTE: N/A

PROJECT NO.
130013698CTF

GN1

CUSTOMER TO PROVIDE THE NECESSARY HVAC REQUIREMENTS FOR THE TOSHIBA EQUIPMENT TO OPERATE PROPERLY.

AMBIENT TEMPERATURE SHOULD BE 68°–74° F
WITH EQUIPMENT HEAT LOADS (SEE EQUIPMENT LEGEND SHEET A1)
HUMIDITY RANGE OF 40–70% NON–CONDENSING

A. STATED AMBIENT TEMPERATURE IS TO BE PROVIDED AND MAINTAINED AS SPECIFIED. ALL CALCULATIONS ARE TO UTILIZE TOSHIBA PROVIDED HEAT OUTPUT SPECIFICATIONS OF EQUIPMENT.

B. A MINIMUM OF 10 AIR CHANGES PER HOUR IS SUGGESTED, CONSULT LOCAL CODE.

C. AIR SUPPLY DUCTS SHOULD NOT BE PLACED DIRECTLY OVER EXAMINATION TABLES FOR PATIENT COMFORT (SEE DETAIL 2, SHEET GN2).

D. EQUIPMENT IN ENCLOSED SPACES SUCH AS EQUIPMENT ROOMS, TRANSFORMER CLOSETS AND COMPUTER ROOMS MUST BE PROVIDED WITH ADEQUATE VENTILATION.

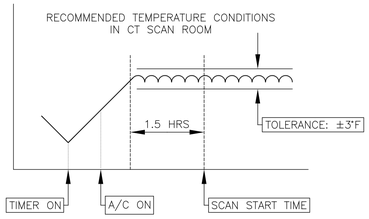
E. THE AIRFLOW THROUGH TOSHIBA EQUIPMENT CABINETS IS FROM BOTTOM TO TOP.

F. WHERE POSSIBLE, AIR CONDITIONING SUPPLY OUTLETS SHOULD BE LOCATED AT FLOOR LEVEL. NO AIR CONDITIONING OUTLET SHOULD BE WITHIN THE EXCLUSION ZONE SHOWN BELOW AND AT NO TIME SHOULD THE CT SYSTEM BE EXPOSED TO DIRECT AIRFLOW.

G. RETURN GRILLES ARE TO BE INSTALLED IN THE CEILING.

H. A/C SUPPLY OUTLET TO BE PROVIDED BY CUSTOMER AT FLOOR LEVEL AT CONTROL ROOM DESK.

I. DUE TO HEAT GENERATED BY THE "CPU" UNIT, ADDITIONAL VENTILATION IN THE CONTROL AREA IS REQUIRED. CUSTOMER/CONTRACTOR PROVIDED FAN(S) MAY BE NECESSARY BELOW THE DESKTOP FOR TECHNICIAN COMFORT. THE "CPU" UNIT SHOULD NOT BE ENCLOSED IN CASEWORK.

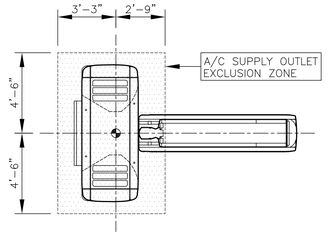


J. IN GENERAL, THE SCANNING ROOM MUST BE PROVIDED WITH AN INDEPENDENT AIR CONDITIONING SYSTEM. EVEN IF THE ROOM IS MAINTAINED WITHIN THE PERMISSIBLE TEMPERATURE RANGE, GRADUAL TEMPERATURE SHIFTS (FOR EXAMPLE, A SLOW INCREASE IN ROOM TEMPERATURE FROM MORNING TO EVENING) MAY ADVERSELY AFFECT SYSTEM PERFORMANCE. THEREFORE, THE ROOM TEMPERATURE MUST BE KEPT UNDER CONSTANT CONTROL (WITHIN ±3°F) AS SHOWN IN THE ABOVE FIGURE.

K. THE AIR CONDITIONING SYSTEM IN THE SCANNING ROOM MUST BE INSTALLED SO THAT THE CT SYSTEM IS NOT EXPOSED TO DIRECT AIRFLOW. FAILURE TO DO SO MAY CAUSE THE TEMPERATURE INSIDE THE CT SYSTEM TO FLUCTUATE, POSSIBLY AFFECTING THE DISPLAYED IMAGES ADVERSELY.

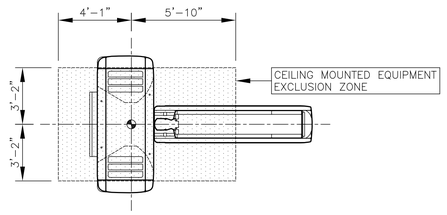
1 HVAC REQUIREMENTS

SCALE: NOT TO SCALE 02–13–13



2 SUPPLY OUTLET EXCLUSION ZONE

SCALE: 1/4" = 1'–0" 02–13–13



A. CEILING MOUNTED EQUIPMENT MUST BE POSITIONED TO AVOID INTERFERENCE WITH GANTRY.

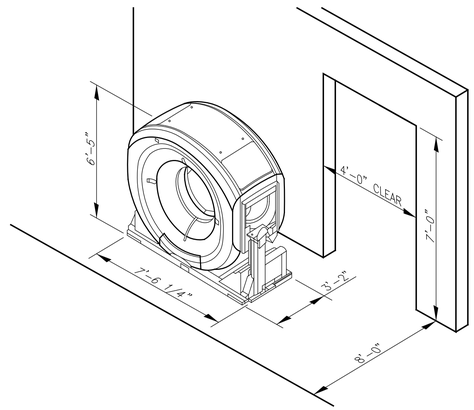
B. EQUIPMENT IS TO BE A MINIMUM OF 10" ABOVE THE RAISED GANTRY COVER (SEE DETAIL 1, SHEET A2).

C. OVERHEAD COUNTERPOISE SYSTEMS CAN BE INSTALLED OVER GANTRY ISOCENTER IF THE PLATE IS MOUNTED AT A HEIGHT SUCH THAT THE BOTTOM OF THE POST DOES NOT INTERFERE WITH THE GANTRY (HEIGHT OF GANTRY + 10" CLEARANCE + POST LENGTH = MOUNTING PLATE HEIGHT ABOVE FINISHED FLOOR).

3 CEILING MOUNTED EQUIPMENT

SCALE: 1/4" = 1'–0" 02–13–13

PRIOR TO GANTRY DELIVERY, CHECK THE DELIVERY ENTRANCE, CORRIDOR WIDTH, ELEVATOR CAPACITY, ETC. TO ENSURE EASE OF DELIVERY. COMPENSATION FOR ADDITIONAL REQUIREMENTS OF RIGGING EQUIPMENT USED (I.E. SIZE AND MANEUVERABILITY) MUST BE CONSIDERED WHEN REVIEWING THE FOLLOWING.



MINIMUM DELIVERY REQUIREMENTS

MINIMUM HEIGHT OF ENTRY WAY DOORS: 6'–9"
MINIMUM WIDTH OF ENTRY WAY DOORS: 3'–7 1/2"
MINIMUM WIDTH OF CORRIDOR: 6'–7"

4 RECOMMENDED GANTRY DELIVERY REQUIREMENTS

SCALE: NOT TO SCALE 02–13–13

TOSHIBA
Leading Innovation »»

REV	DATE	DESCRIPTION	INT

FOR REFERENCE ONLY. NOT TO BE USED FOR CONSTRUCTION PURPOSES.

HARRISBURG HOSPITAL
(AQUILION – RXL)
111 S FRONT ST
HARRISBURG, PA 17101

DATE: 06–19–13

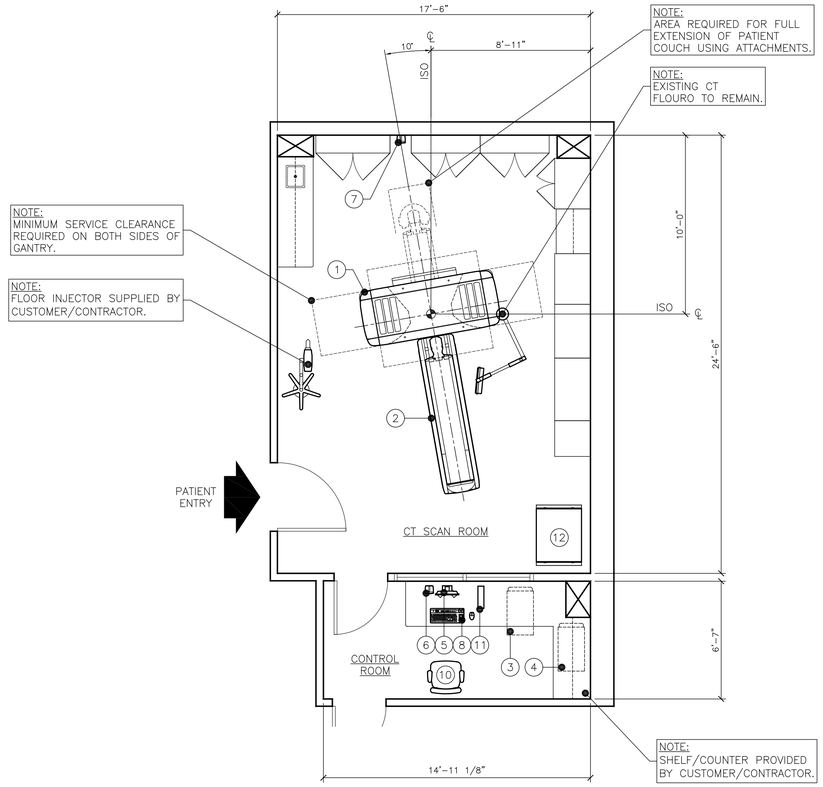
SCALE: NOT TO SCALE

PLANNER: C.B.S.

QUOTE: N/A

PROJECT NO.
130013698CTF

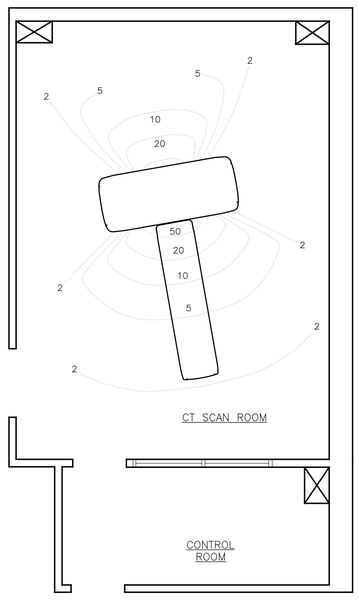
GN2



EQUIPMENT LAYOUT

0 1' 2' 4' 8' 16'

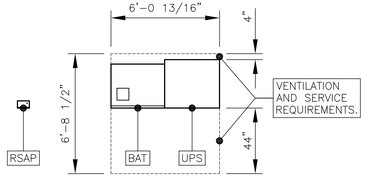
NOTE:
THE EQUIPMENT SHOWN IN THIS LAYOUT MUST BE VERIFIED WITH THE FINAL PURCHASE ORDER.



SCATTER RADIATION FIELD

0 1' 2' 4' 8' 16'

POWER SOLUTION



NOTE:
A. THE POWER SOLUTION SHOWN IS FOR PLANNING PURPOSES ONLY. THE FINAL ORDER WILL SHOW THE POWER SOLUTION CONFIGURATION REQUIRED TO MEET SITE SPECIFIC CONDITIONS. SEE TOSHIBA POWER & ENVIRONMENTAL QUALITY NOTIFICATION / ASSESSMENT NOTE "A" ON SHEET GN1 FOR MORE INFORMATION.
B. THE GB000 UNINTERRUPTIBLE POWER SUPPLY (UPS) WITH BATTERY CABINET (BAT) SHOWN HERE ARE TO BE REMOTELY LOCATED.
C. SEE RECOMMENDED DELIVERY REQUIREMENTS DETAIL 5, SHEET GN2.
D. THE REMOTE STATUS ALARM PANEL (RSAP) SHOWN HERE, WILL BE WALL MOUNTED IN THE CONTROL ROOM.
E. SEE EQUIPMENT SPECIFICATIONS ON SHEET A2.
F. THE "UPS" AND "BAT" CABINETS CAN BE SEPARATED. CABLES BETWEEN "UPS" AND "BAT" CAN BE RUN UP TO, BUT NOT TO EXCEED, 70'-0" IN LENGTH.
G. THIS EQUIPMENT, IF PURCHASED, WILL BE PROVIDED BY TOSHIBA AND INSTALLED BY CUSTOMER/CONTRACTOR.
H. 16" AIR FLOW CLEARANCE ABOVE "UPS" IS REQUIRED.
I. "RSAP" MONITOR MUST BE LOCATED WITHIN 1,000 FEET OF THE "UPS". "RSAP" TO BE INSTALLED BY CUSTOMER'S ELECTRICIAN. CUSTOMER'S ELECTRICIAN MUST PROVIDE 7 TWISTED PAIR 16 AWG CABLE (SIGNAL), AND 18 AWG WIRE (POWER) FROM "UPS" TO "RSAP".

EQUIPMENT LEGEND

ITEM	ELEC. SYM.	ITEM DESCRIPTION SUPPLIED AND INSTALLED BY TOSHIBA	BTU/HR	WEIGHT	REF.
1	GANT	AQUILION GANTRY (TYPE C)	*	3,859	1 A2
2	PCH	AQUILION PATIENT COUCH (STANDARD)	*	1,070	1 A2
3	CPU	CENTRAL PROCESSING UNIT	10,246	261	2 A2
4	REC	RECONSTRUCTION UNIT (BTU/HR INCLUDED WITH "CPU")	–	298	3 A2
5	MON	CONTROL MONITOR	192	18	4 A2
6	SPK1	SPEAKER (DESKTOP)	0	5	5 A2
7	SPK2	SPEAKER (WALL MOUNT)	0	5	5 A2
8	SKBD	KEYBOARD (SCAN)	0	6	– –
9	DESK	DESK FOR MONITORS & KEYBOARDS	0	221	6 A2
10	CHR	CHAIR	0	55	– –
11	INV	INNERVISION WORKSTATION	T.B.D.	17	7 A2
ITEM	**ELEC. SYM.**	**ITEM DESCRIPTION - SUPPLIED BY TOSHIBA & INSTALLED BY CUSTOMER / CONTRACTOR**	**BTU/HR**	**WEIGHT**	**REF.**
12	PD	POWER DISTRIBUTOR	2,730	1,197	8 A2
ITEM	**ELEC. SYM.**	**OPTIONAL ITEM DESCRIPTION - SUPPLIED & INSTALLED BY TOSHIBA**	**BTU/HR**	**WEIGHT**	**REF.**
ITEM	**ELEC. SYM.**	**OPTIONAL ITEM DESCRIPTION - SUPPLIED BY TOSHIBA & INSTALLED BY CUSTOMER / CONTRACTOR**	**BTU/HR**	**WEIGHT**	**REF.**

* AQUILION GANTRY & COUCH BTU / HOUR:

EXAM ROOM SCANNING 2 PATIENTS:	20,081 BTU/HR
EXAM ROOM SCANNING 3 PATIENTS:	21,104 BTU/HR
EXAM ROOM SCANNING 4 PATIENTS:	22,128 BTU/HR
EXAM ROOM SCANNING 5 PATIENTS:	23,151 BTU/HR
EXAM ROOM SCANNING MAXIMUM:	24,175 BTU/HR

FUTURE GROWTH OF FACILITY MUST BE CONSIDERED WHEN FORECASTING PATIENT NUMBERS FOR A/C REQUIREMENTS.

REVISED: 02-25-13

SCATTER RADIATION

UNITS: MICROGRAY (PER 100 mAs)

THE AMOUNT OF SCATTERED RADIATION DURING SCANNING IS SHOWN IN THE EQUIPMENT LAYOUT. REFER TO THIS DATA WHEN SCANNING TO MINIMIZE X-RAY EXPOSURE. NOTE THAT THE AMOUNT OF SCATTERED RADIATION DIFFERS DEPENDING ON THE PATIENT; THEREFORE, THE DATA SHOWN SHOULD BE USED ONLY AS A GUIDE.

120kV / 100mA / 1.0s / M / 8mm x 4 / 320mm diameter PMMA phantom.

THE ABOVE CALCULATION IS BASED ON A MULTI-SLICE EXPOSURE.

THE CUSTOMER/CONTRACTOR IS RESPONSIBLE FOR HAVING SHIELDING CALCULATIONS PREPARED BY A LICENSED RADIATION PHYSICIST.

TOSHIBA REPRESENTATIVE WILL PROVIDE THE VERTICAL PLANE SCATTER DIAGRAM UPON REQUEST.

REVISED: 02-13-13

SITE PLAN APPROVAL

IN ORDER TO USE THIS SET OF FINAL SITE PLANS, A CUSTOMER SIGNATURE IS REQUIRED BELOW. THE CUSTOMER'S SIGNATURE DEMONSTRATES ACCEPTANCE OF THE LAYOUT SHOWN AND ALL STATED SPECIFICATIONS.

CUSTOMER:	DATE:
SALES:	DATE:
I.P.M.:	DATE:

TOSHIBA
Leading Innovation

REV	DATE	DESCRIPTION	INT

HARRISBURG HOSPITAL
(AQUILION – RXL)
111 S FRONT ST
HARRISBURG, PA 17101

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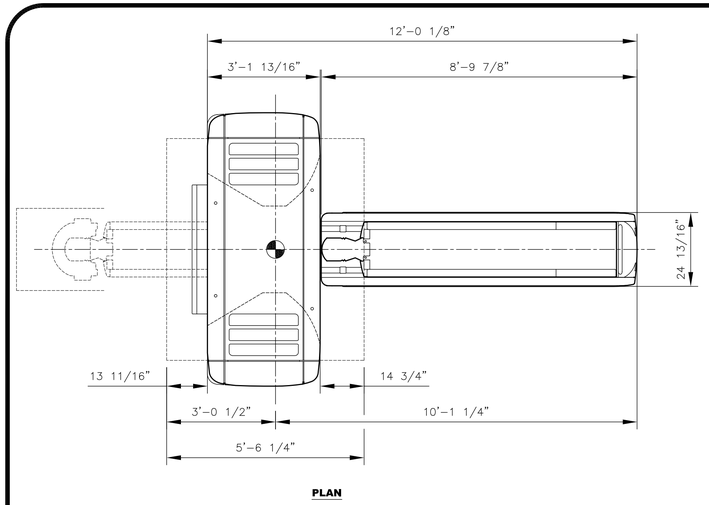
DATE: 06-19-13
SCALE: 1/4" = 1'-0"
PLANNER: C.B.S.
QUOTE: N/A
PROJECT NO.
130013698CTF

A1

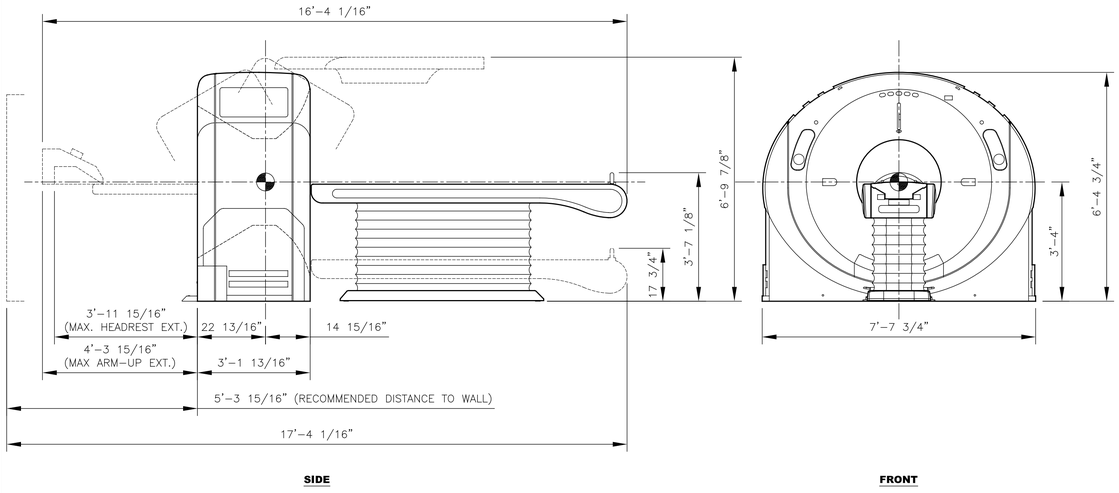
FOR REFERENCE ONLY. NOT TO BE USED FOR CONSTRUCTION PURPOSES.

GANT
HEAT OUTPUT (BTU'S)
SEE SHEET A1
WEIGHT (LBS)
3,859

PCH
HEAT OUTPUT (BTU'S)
SEE SHEET A1
WEIGHT (LBS)
1,070



PLAN



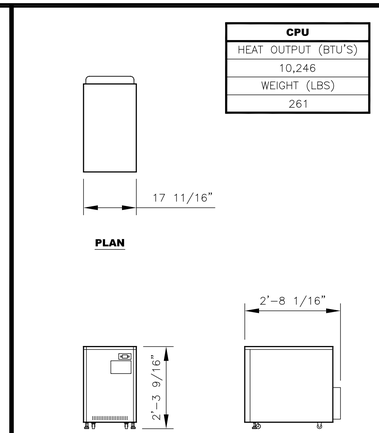
SIDE

FRONT

1 AQUILION CT SCANNER -GANTRY AND PATIENT COUCH (STANDARD)

SCALE: 1/2" = 1'-0" 03-06-13

CPU
HEAT OUTPUT (BTU'S)
10,246
WEIGHT (LBS)
261

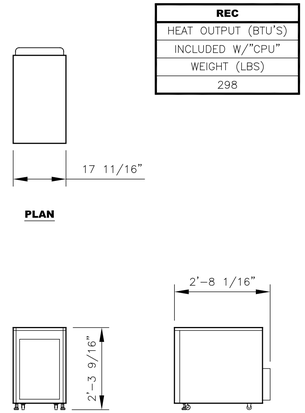


PLAN FRONT SIDE

2 CENTRAL PROCESSING UNIT

SCALE: 1/2" = 1'-0" 03-06-13

REC
HEAT OUTPUT (BTU'S)
INCLUDED W/"CPU"
WEIGHT (LBS)
298

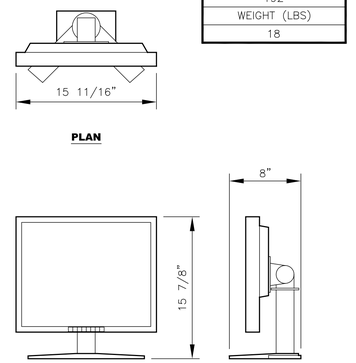


PLAN FRONT SIDE

3 RECONSTRUCTION UNIT

SCALE: 1/2" = 1'-0" 03-06-13

MON
HEAT OUTPUT (BTU'S)
192
WEIGHT (LBS)
18



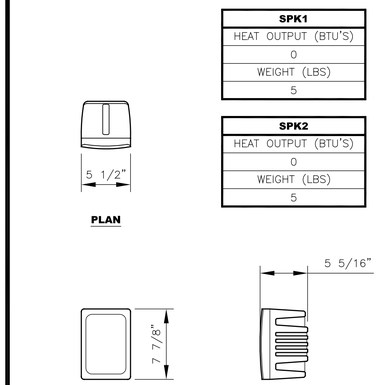
PLAN FRONT SIDE

4 CONTROL MONITOR(S)

SCALE: 1 1/2" = 1'-0" 03-06-13

SPK1
HEAT OUTPUT (BTU'S)
0
WEIGHT (LBS)
5

SPK2
HEAT OUTPUT (BTU'S)
0
WEIGHT (LBS)
5

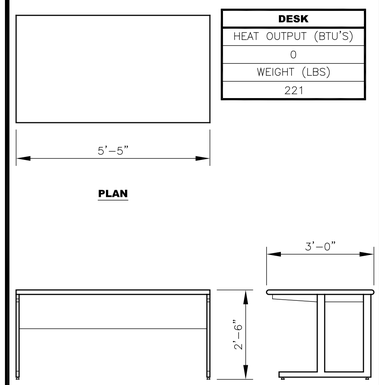


PLAN FRONT SIDE

5 SPEAKER(S)

SCALE: 1 1/2" = 1'-0" 03-06-13

DESK
HEAT OUTPUT (BTU'S)
0
WEIGHT (LBS)
221

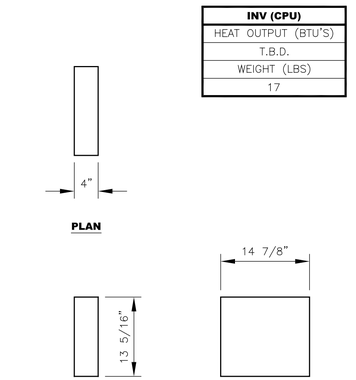


PLAN FRONT SIDE

6 CONTROL DESK

SCALE: 1/2" = 1'-0" 03-06-13

INV (CPU)
HEAT OUTPUT (BTU'S)
T.B.D.
WEIGHT (LBS)
17

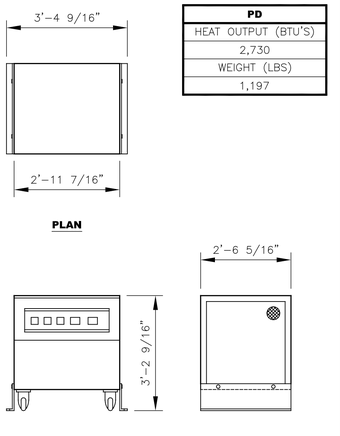


PLAN FRONT SIDE

7 INNERVISION

SCALE: 1" = 1'-0" 03-06-13

PD
HEAT OUTPUT (BTU'S)
2,730
WEIGHT (LBS)
1,197

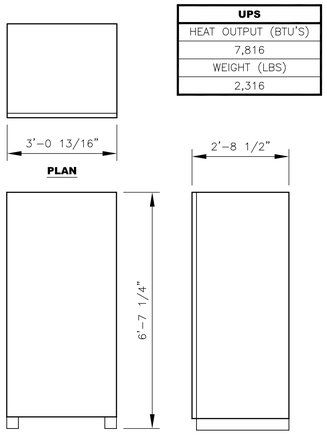


PLAN FRONT SIDE

8 POWER DISTRIBUTOR

SCALE: 1/2" = 1'-0" 03-06-13

UPS
HEAT OUTPUT (BTU'S)
7,816
WEIGHT (LBS)
2,316

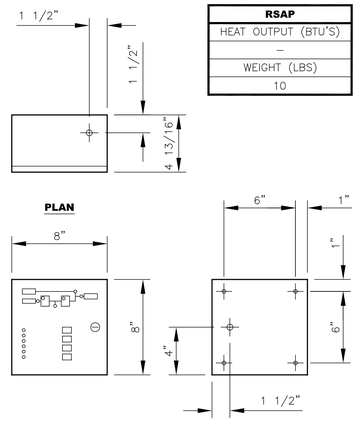


PLAN FRONT SIDE

9 G8000 UNINTERRUPTIBLE POWER SUPPLY

SCALE: 1/2" = 1'-0" 03-06-13

RSAP
HEAT OUTPUT (BTU'S)
–
WEIGHT (LBS)
10

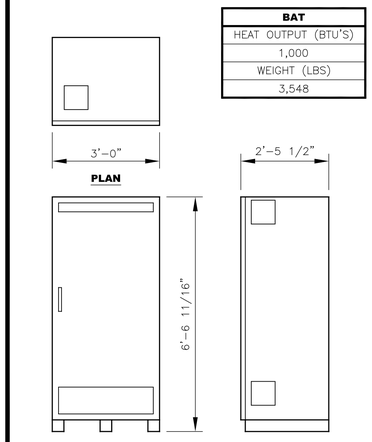


PLAN FRONT SIDE

10 REMOTE STATUS ALARM PANEL

SCALE: 2" = 1'-0" 03-06-13

BAT
HEAT OUTPUT (BTU'S)
1,000
WEIGHT (LBS)
3,548



PLAN FRONT SIDE

11 BATTERY CABINET

SCALE: 1/2" = 1'-0" 03-06-13

TOSHIBA
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REV	DATE	DESCRIPTION	INT

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DATE: 06-19-13

SCALE: AS NOTED

PLANNER: C.B.S.

QUOTE: N/A

PROJECT NO.
130013698CTF

A2

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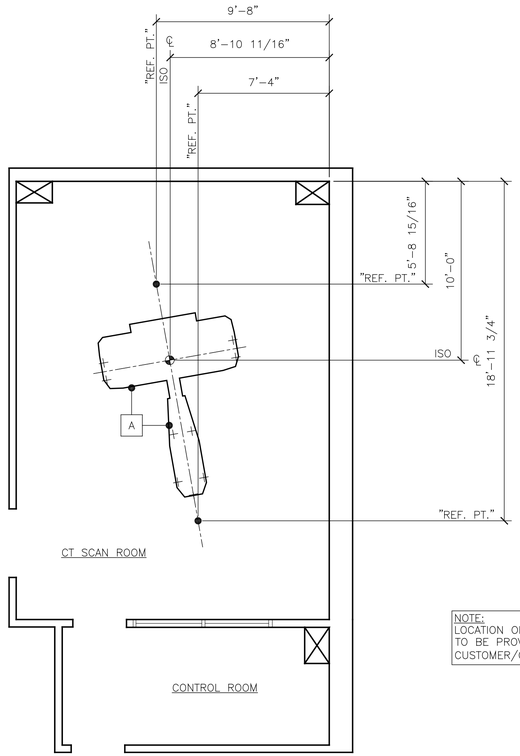


NOTE:
LOCATION OF INJECTOR TO BE PROVIDED BY CUSTOMER/CONTRACTOR.

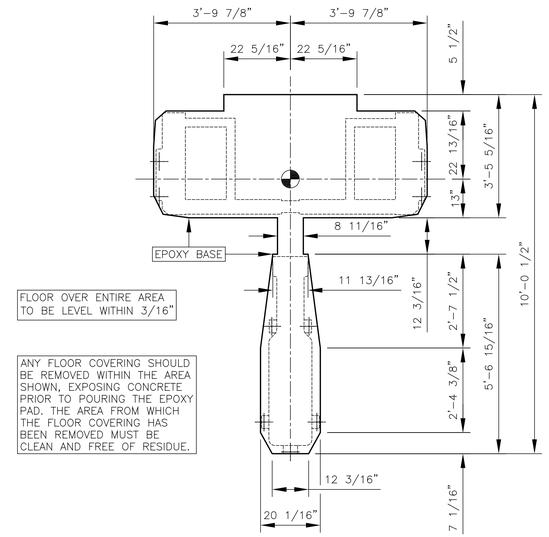
STRUCTURAL LAYOUT

0 1' 2' 4' 8' 16'

NOTE:
ANY FLOOR COVERING SHOULD BE REMOVED WITHIN THE AREA SHOWN IN DETAIL 1 EXPOSING CONCRETE PRIOR TO POURING THE EPOXY PAD. THE AREA FROM WHICH THE FLOOR COVERING HAS BEEN REMOVED MUST BE CLEAN AND FREE OF RESIDUE.

STRUCTURAL LEGEND

ITEM	ITEM DESCRIPTION SUPPLIED AND INSTALLED BY TOSHIBA	REF.
A	BASE LAYOUT FOR AQUILION	1 / S1



DETAIL NOTES

AN EPOXY PAD MUST BE POURED TO PROVIDE A LEVEL SURFACE. AN EPOXY PAD KIT WILL BE PROVIDED WITH THE PRE–INSTALLATION MATERIALS. CONTACT YOUR INSTALLATION PROJECT MANAGER FOR ADDITIONAL INFORMATION.

APPLY EPOXY RESIN TO THE AREA INDICATED ABOVE.

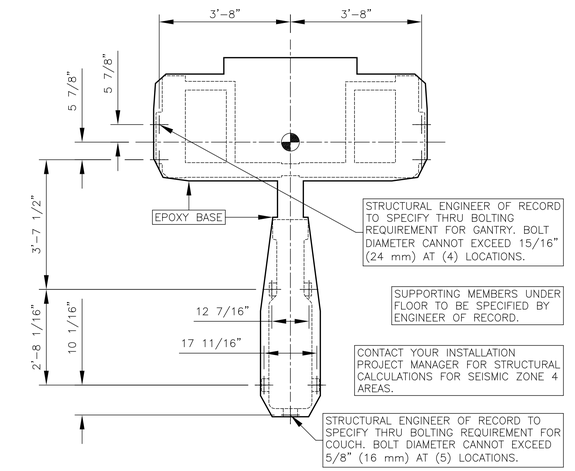
(I) EPOXY RESIN: SPECIFIC GRAVITY 1.2
HARDENER: SPECIFIC GRAVITY 1.2
MIXTURE RATIO: PER MANUFACTURER'S SPECIFICATIONS
CURING TIME: 36–48 HOURS (AT AN AMBIENT TEMPERATURE OF APPROXIMATELY 75°F)

(II) SINCE THE EPOXY RESIN TAKES 36–48 HOURS (DEPENDING ON AMBIENT TEMPERATURE) TO CURE, THIS WORK MUST BE COMPLETED BEFORE THE SYSTEM IS TO BE CARRIED IN.

(III) THE ACCURACY OF THE DIMENSIONS INDICATED IN THE ABOVE FIGURE MUST BE WITHIN THE RANGE OF ±1/4" AS MEASURED WITH A TAPE MEASURE.

1 BASE EPOXY DETAIL

SCALE: 1/2" = 1'–0" 02–13–13



2 BASE ANCHOR BOLT DETAIL

SCALE: 1/2" = 1'–0" 02–13–13

TOSHIBA
Leading Innovation

REV	DATE	DESCRIPTION	INT

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DATE: 06–19–13
SCALE: 1/4" = 1'–0"
PLANNER: C.B.S.
QUOTE: N/A
PROJECT NO. **130013698CTF**

S1

FOR REFERENCE ONLY. NOT TO BE USED FOR CONSTRUCTION PURPOSES.

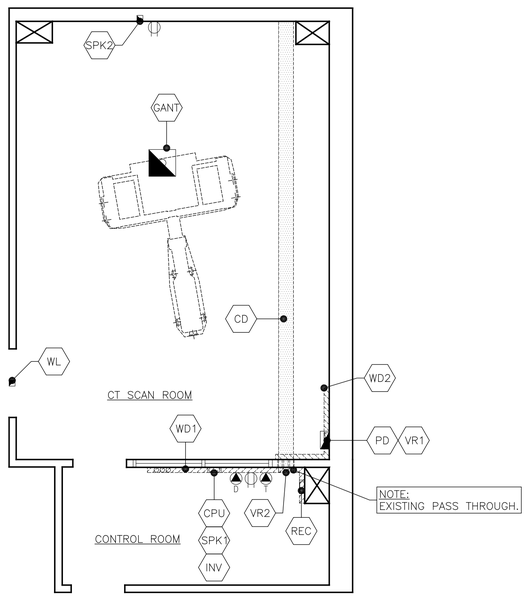
ELECTRICAL LEGEND

ITEM	ITEM DESCRIPTION SUPPLIED AND INSTALLED BY CUSTOMER / CONTRACTOR	REF.
MAIN	MAIN SERVICE ENTRANCE PANEL	2 / E3
CB	THREE PHASE CIRCUIT BREAKER PER TOSHIBA POWER SPECIFICATIONS (SEE DETAIL) CIRCUIT BREAKER LOCATION PER CODE REQUIREMENTS BY ELECTRICAL CONTRACTOR.	2 / E3
PD	EXISTING 12" H X 12" W X 6" D J-BOX FLUSH MOUNTED 28" A.F.F. TO BOTTOM OF BOX. OPEN TO "VR1". FLEX CONDUIT FROM J-BOX TO CABINET.	
EPO	4" STD. J-BOX FOR REMOTE OFF SWITCH. LOCATED BY CUSTOMER/CONTRACTOR. DPDT, NORMALLY OPEN MUSHROOM HEAD PUSH BUTTON.	2 / E3
WL	4" STD. J-BOX FOR "X-RAY ON" OR WARNING LIGHT MOUNTED ABOVE PATIENT ENTRY DOOR.	3 / E3
BS	BUILDING STEEL.	2 / E3
GANT	EXISTING 18" W X 18" L X 6" D, J-BOX MOUNTED BELOW FLOOR. OPEN TO GANTRY CABLE TRAY VIA (1) 5" STUB-UP.	
CPU, SPK1, INV	EXISITNG SHARED GROMMETED OPENING IN WALL DUCT "WD1".	
REC	EXISTING GROMMETED OPENING IN "WD1". FLEX CONDUIT MAY BE REQUIRED TO MEET LOCAL CODE.	
SPK2	EXISTING 4" STD. J-BOX FOR SCAN ROOM SPEAKER, FLUSH MOUNTED 58" A.F.F. TO BOTTOM OF BOX (IN PROCEDURE ROOM).	
	110V ELECTRICAL OUTLETS FOR SYSTEM EQUIPMENT AND/OR SERVICE EQUIPMENT. OUTLETS TO BE LOCATED IN EACH ROOM WHERE SYSTEM EQUIPMENT IS LOCATED.	1 / E1
D	RJ45 CONNECTOR, CAT5 CABLE TO BE USED FOR DATA CONNECTION FOR NETWORKING.	1 / E1
T	DEDICATED PHONE LINE SUPPLIED/INSTALLED BY CUSTOMER/CONTRACTOR.	1 / E1

MAIN CB EPO BS

NOTE:
TO BE LOCATED BY CUSTOMER / CONTRACTOR.

ADDITIONAL "EPO" SWITCHES TO BE LOCATED IN ADJACENT ROOMS WITH TOSHIBA EQUIPMENT IF MAIN "EPO" IS NOT ACCESSIBLE (VERIFY WITH LOCAL CODE). ALL "EPO" SWITCHES TO BE PROVIDED BY CUSTOMER / CONTRACTOR.



ELECTRICAL LAYOUT

0 1' 2' 4' 8' 16'

NOTE:
REUSE ANY EXISTING DUCT, J-BOXES OR CONDUITS IF APPLICABLE.

NOTE:
TOSHIBA SUPPLIED POWER CABLE BETWEEN THE "PD" AND TOSHIBA EQUIPMENT ARE TO BE USED IF THE CABLE LENGTHS PROVIDED ARE SUFFICIENT. SEE DETAIL 2, SHEET E3. IN CASES WHERE EXTENDED CABLE LENGTHS ARE REQUIRED, THE CUSTOMER/CONTRACTOR MUST PROVIDE CABLES PER LOCAL/NATIONAL CODES.

CUSTOMER/CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL CABLES ARE IN COMPLIANCE WITH ALL LOCAL/NATIONAL CODES.

NOTE:
FIBER OPTICAL CABLES FROM RECONSTRUCTION UNITS REQUIRE A MINIMUM BENDING RADIUS OF 4 1/2". DUCT WORK DESIGN MUST ACCOMMODATE THIS REQUIREMENT.

NOTE:
J-BOX SIZES MAY BE INCREASED AS NEEDED.

NOTE:
GROMMETED OPENINGS ARE SHOWN FOR REFERENCE ONLY. VERIFY SIZE AND LOCATION WITH TOSHIBA REPRESENTATIVE.

ELECTRICAL DUCT LEGEND

ITEM	ITEM DESCRIPTION SUPPLIED AND INSTALLED BY CUSTOMER / CONTRACTOR	REF.
WD1	EXISTING SURFACE MOUNTED WALL DUCT, W/(3) EQUALLY PARTITIONED COMPARTMENTS THROUGHOUT & REMOVABLE ACCESS COVERS. MOUNTED 3" OR A.F.F. TO BOTTOM OF DUCT.	
WD2	EXISTING SURFACE MOUNTED METAL WALL DUCT W/(3) EQUAL PARTITIONED COMPARTMENTS THROUGHOUT & REMOVABLE ACCESS COVERS. MOUNTED 3" A.F.F. TO BOTTOM OF DUCT. OPEN TO "WD1" VIA (3) 3" CHASE NIPPLES.	
VR1	EXISTING SURFACE MOUNTED RISER DUCT, W/(3) EQUALLY PARTITIONED COMPARTMENTS THROUGHOUT & REMOVABLE ACCESS COVERS. FROM "PD" TO "WD2".	
VR2	EXISTING SURFACE MOUNTED RISER DUCT, W/(3) EQUALLY PARTITIONED COMPARTMENTS THROUGHOUT & REMOVABLE ACCESS COVERS. FROM "CD" TO "WD1".	
CD	EXISTING DUCT MOUNTED ABOVE FINISHED CEILING, W/(3) EQUALLY PARTITIONED COMPARTMENTS THROUGHOUT & REMOVABLE ACCESS COVERS (THICKNESS SHOULD BE ABLE TO SUPPORT MIN. OF 200 LBS.) ARE REQUIRED.	

TOSHIBA
Leading Innovation

REV	DATE	DESCRIPTION	INT

HARRISBURG HOSPITAL
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DATE: 06-19-13

SCALE: 1/4" = 1'-0"

PLANNER: C.B.S.

QUOTE: N/A

PROJECT NO.
130013698CTF

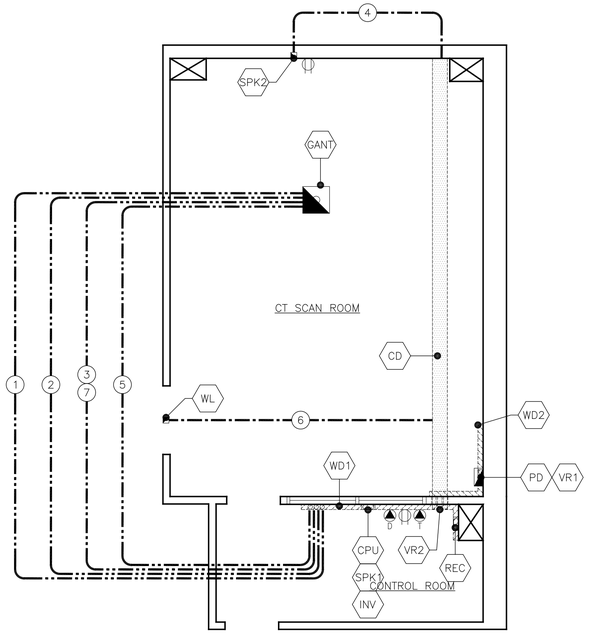
E1

FOR REFERENCE ONLY. NOT TO BE USED FOR CONSTRUCTION PURPOSES.

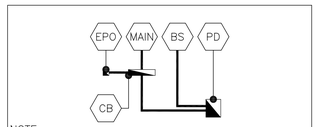
CONDUIT SCHEDULE

CONTRACTOR CONDUIT REFERENCE						CABLE REFERENCE				
RUN NO.	CONDUIT (POINT TO POINT)		CONDUIT (ROUTING)	CONDUIT (DIAMETER)	CONDUIT (MAX LENGTH)	CABLE (POINT TO POINT)		CABLE LENGTH (USABLE)	CABLES (SUPPLIED BY)
1	WD1	GANT	UNDER FLOOR	(2) 2 1/2"	20'-0"	PD	GANT	SEE RUN "B"* DETAIL (1/E4)	TOSHIBA
2	GANT	WD1	UNDER FLOOR	2 1/2"	20'-0"	GANT	CPU	SEE RUN "D" DETAIL (1/E4)	TOSHIBA
3	GANT	WD1	UNDER FLOOR	(2) 3"	20'-0"	GANT	CPU	SEE RUN "E" DETAIL (1/E4)	TOSHIBA
4	SPK2	CD	OVER CEILING	1/2"	25'-0"	SPK2	CPU	SEE RUN "G" DETAIL (1/E4)	TOSHIBA
5	WD1	GANT	UNDER FLOOR	2 1/2"	20'-0"	REC	GANT	SEE RUN "L" DETAIL (1/E4)	TOSHIBA
6	WL	CD	OVER CEILING	PER MANUFACTURER	PER MANUFACTURER	WL	GANT	PER MANUFACTURER	CONTRACTOR
7	GANT	WD1	UNDER FLOOR	1"	20'-0"	GANT	INV	SEE RUN "H" DETAIL (1/E4)	TOSHIBA

NOTE:
A. CONDUITS SUPPLIED/INSTALLED BY CUSTOMER/CONTRACTOR.
B. ALL CONDUIT RUNS MUST TAKE THE SHORTEST MOST DIRECT ROUTE POSSIBLE.
C. * IF RUN IS GREATER THAN LENGTH SHOWN, CUSTOMER/CONTRACTOR TO PROVIDE CABLES. REFER TO DETAIL 1, SHEET E3.
D. CONDUIT IS NOT TO BE RUN IN SUCH A MANNER THAT WILL EXCEED CONDUIT MAXIMUM LENGTH AS SHOWN IN THE SCHEDULES.



NOTE:
REUSE ANY EXISTING DUCT, J-BOXES OR CONDUITS IF APPLICABLE.



NOTE:
FOR ABOVE CONNECTIONS, SEE DETAIL 2, SHEET E3.

ALL CABLES AND CONDUITS REQUIRED ARE TO BE PROVIDED BY CUSTOMER CONTRACTOR.

ELECTRICAL SCHEMATIC

(PROVIDED FOR REFERENCE PURPOSES ONLY)

0 1' 2' 4' 8' 16'

CABLE KEY	
	IN/UNDER FLOOR
	OVER CEILING
	CONTRACTOR DETERMINED

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REV	DATE	DESCRIPTION	INT

HARRISBURG HOSPITAL
(AQUILION - RXL)
111 S FRONT ST
HARRISBURG, PA 17101

DATE: 06-19-13

SCALE: 1/4" = 1'-0"

PLANNER: C.B.S.

QUOTE: N/A

PROJECT NO.
130013698CTF

E2

FOR REFERENCE ONLY. NOT TO BE USED FOR CONSTRUCTION PURPOSES.

POWER QUALITY REQUIREMENTS
AQUILION

SUPPLY CONFIGURATION:	3 PHASE, 3 WIRE POWER, AND GROUND, DELTA OR WYE (SEE NOTE A)
NOMINAL LINE VOLTAGE:	480 VAC, 60 HZ (SEE NOTE B)
LINE VOLTAGE VARIATION:	±10% STEADY–STATE INCLUDING SAGS AND SURGES
LINE VOLTAGE BALANCE:	2% MAXIMUM OF NOMINAL VOLTAGE BETWEEN PHASES.
FREQUENCY VARIATION:	±1 HZ
HARMONIC DISTORTION:	3% STEADY–STATE, 5% FOR SHORT PERIODS (1 MINUTE OR LESS)
GROUND CONDUCTOR IMPEDANCE:	0.1 OHMS @ 60 HZ, TO NEUTRAL–GROUND BONDING POINT (SEE NOTE D)
STANDARD TRANSFORMER CAPACITY:	150 KVA
MAXIMUM SYSTEM DEMAND:	100 KVA (IMAGING)

CONDUCTOR SIZES (SEE NOTE E)
FOR 1.5% IMPEDANCE OF BRANCH CONDUCTORS (20°C)

CONDUCTOR SIZE	LENGTH	BREAKER FRAME SIZE
#2 AWG	218 FT.	200 A
#1 AWG	303 FT.	200 A
1/0 AWG	377 FT.	200 A
2/0 AWG	444 FT.	200 A
CIRCUIT BREAKER SIZE: (SEE NOTE F)	100 A	
MOMENTARY MAXIMUM CURRENT:	150 A	
MAXIMUM VOLTAGE DROP:	24.0 V	
% REGULATION:	5.0%	

STANDARD POWER QUALITY NOTES

A. A GROUNDED NEUTRAL POWER SOURCE IS REQUIRED TO ASSURE RELIABLE EQUIPMENT OPERATION. THE NEUTRAL CONDUCTOR MAY NOT BE USED FOR A PARTICULAR SYSTEM.

B. IN CASES WHERE MULTIPLE VOLTAGES ARE PERMITTED, THE PREFERRED SYSTEM VOLTAGE IS SPECIFIED.

C. DUE TO THE HIGH INSTANTANEOUS POWER OF MEDICAL IMAGING SYSTEMS, USE THE HIGHEST AVAILABLE VOLTAGE SOURCE. ENSURE THAT LOWER VOLTAGE SOURCES ARE DERIVED DIRECTLY FROM THE SERVICE ENTRANCE OF THE FACILITY.

D. GROUND CONDUCTORS ARE REQUIRED TO BE THE SAME SIZE AS THE PHASE CONDUCTORS UNLESS A LARGER SIZE IS REQUIRED BY CODE.

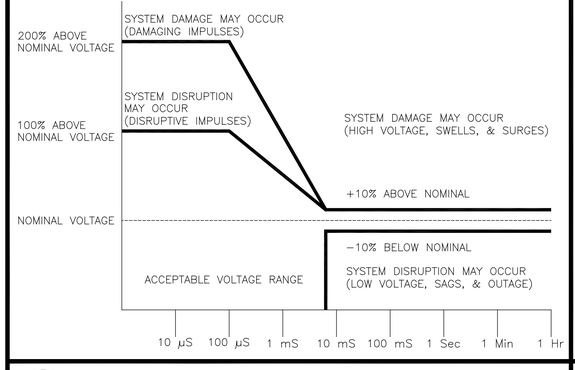
E. ALL FEEDER AND BRANCH CIRCUIT CONDUCTORS MUST BE COPPER – ALUMINUM IS NOT PERMITTED.

F. IF THE EQUIPMENT CIRCUIT BREAKER IS NOT LOCATED IN THE CONTROL AREA, A SHUNT TRIP BREAKER MUST BE USED IN ORDER TO COMPLY WITH N.E.C. 517–72(B). A PUSH–BUTTON TO OPERATE THE SHUNT TRIP MUST BE LOCATED IN THE CONTROL AREA.

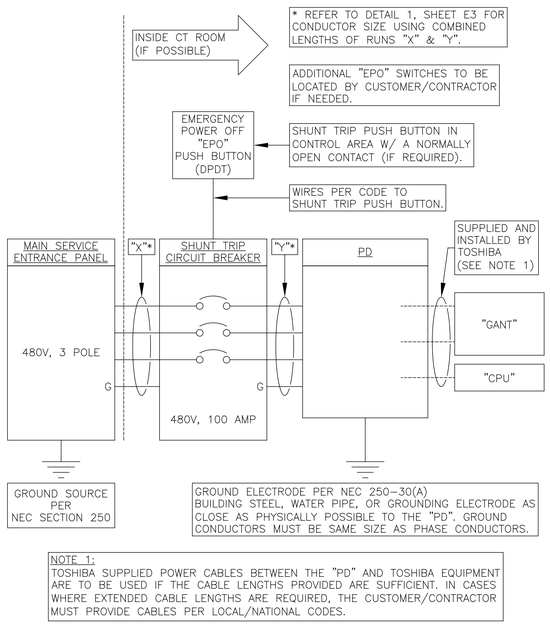
G. A SEPARATE CIRCUIT, FED FROM THE FACILITY RADIOLOGY PANEL OR A MAIN SERVICE PANEL IS REQUIRED. USE OF A SUB PANEL WITH LOADS SUCH AS ELEVATORS, HVAC, MOTORS, ETC., IS NOT PERMITTED.

H. DEVICES SUCH AS UNINTERRUPTIBLE POWER SUPPLIES, POWER CONDITIONERS, VOLTAGE REGULATORS, AND FILTERS MAY BE INCOMPATIBLE WITH THIS IMAGING EQUIPMENT. CONSULT YOUR TOSHIBA SERVICE REPRESENTATIVE PRIOR TO PURCHASING OR INSTALLING THESE DEVICES.

I. THE MAINS POWER GROUND CONDUCTOR IS TO BE RUN WITH THE POWER PHASE CONDUCTORS. THE GROUNDS TO BUILDING STEEL OR EARTH GROUND ARE NOT TO BE RUN WITH THE PHASE CONDUCTORS.

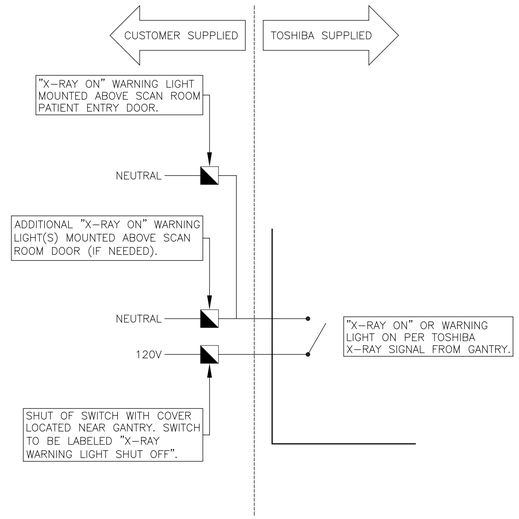


1 POWER REQUIREMENTS
SCALE: NOT TO SCALE 03–06–13



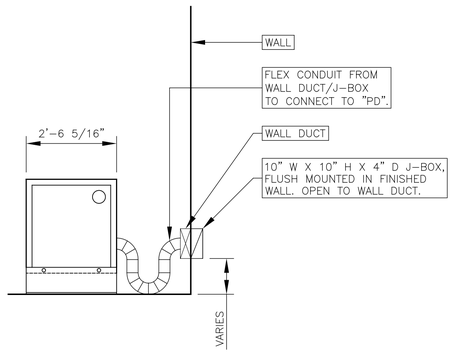
NOTE 1:
TOSHIBA SUPPLIED POWER CABLES BETWEEN THE "PD" AND TOSHIBA EQUIPMENT ARE TO BE USED IF THE CABLE LENGTHS PROVIDED ARE SUFFICIENT. IN CASES WHERE EXTENDED CABLE LENGTHS ARE REQUIRED, THE CUSTOMER/CONTRACTOR MUST PROVIDE CABLES PER LOCAL/NATIONAL CODES.

2 "CB" / "PD" WIRING DETAIL
SCALE: NOT TO SCALE 02–25–13



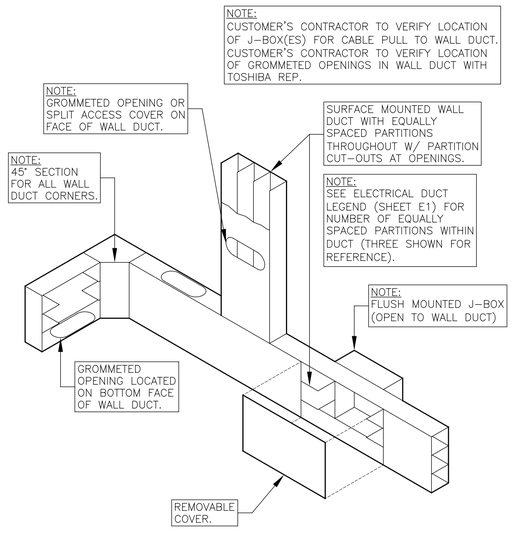
NOTE:
A. "X–RAY ON" OR WARNING LIGHT TO BE PROVIDED BY CUSTOMER/CONTRACTOR.
B. DO NOT USE FLUORESCENT FIXTURES.
C. INCANDESCENT FIXTURES RECOMMENDED.
D. LED FIXTURES CAN BE USED IF CUSTOMER/CONTRACTOR PROVIDES RELAY PER LAMP WATTAGE (MINIMUM RATING: 2 AMP)

3 WARNING LIGHT DETAIL
SCALE: NOT TO SCALE 04–09–13



NOTE:
SUGGESTED MOUNTING OF J–BOX FOR "PD" OR AS PER LOCAL CODE.

4 TYPICAL "PD" J-BOX MOUNTING
SCALE: 1/2" = 1'–0" 02–13–13



5 TYPICAL DUCT DETAIL WITH WALL DUCT / J-BOX / VERTICAL RISER
SCALE: NOT TO SCALE 04–09–13

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HARRISBURG HOSPITAL
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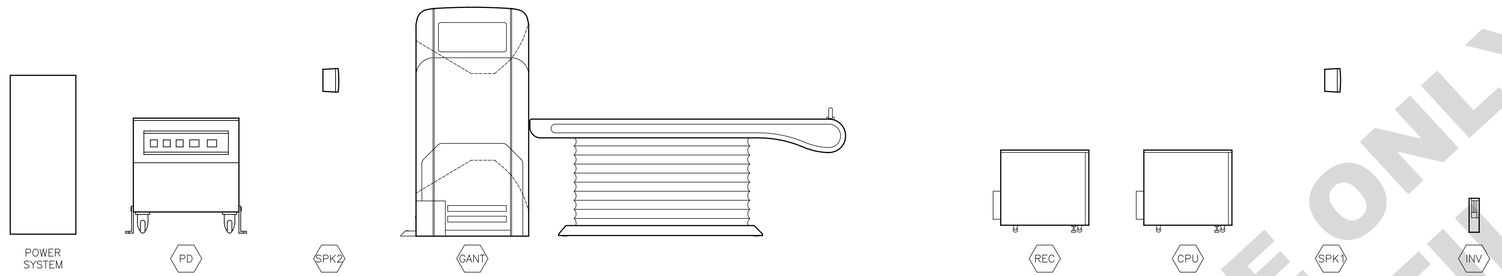
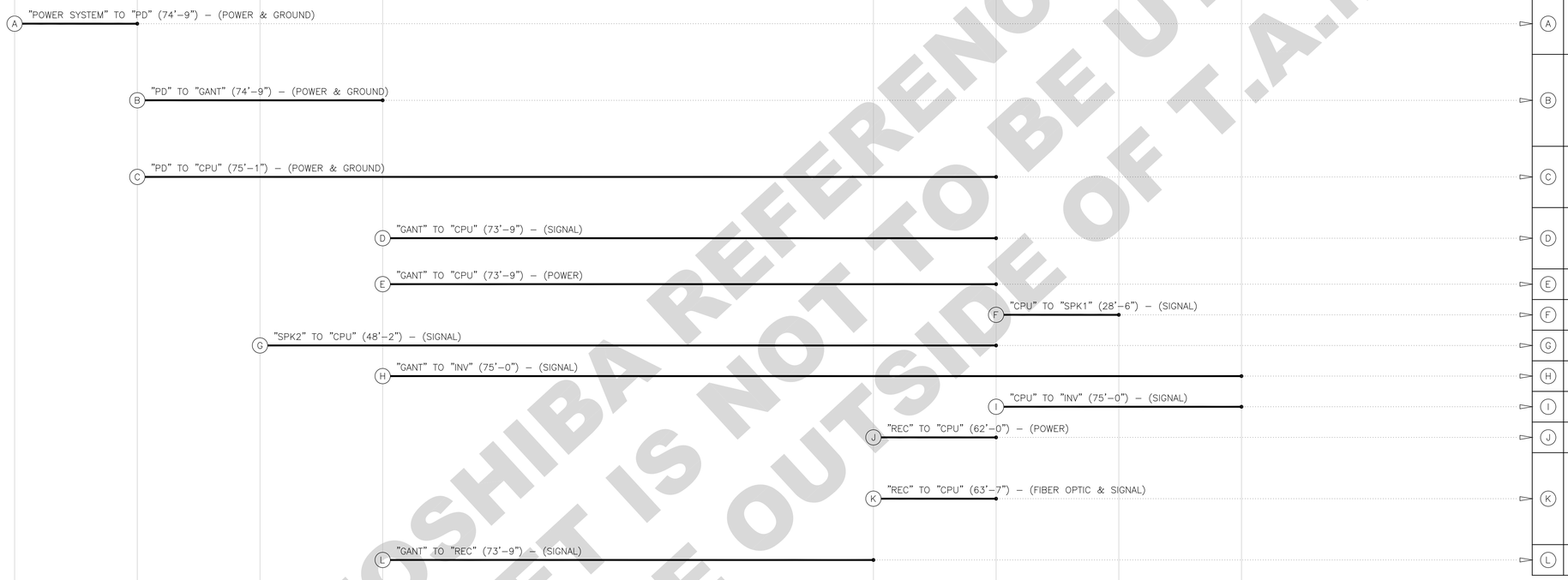
111 S FRONT ST
HARRISBURG, PA 17101

DATE: 06–19–13
SCALE: NOT TO SCALE
PLANNER: C.B.S.
QUOTE: N/A
PROJECT NO.
130013698CTF

E3



NOTE:
A. THE FOLLOWING CABLE DIAGRAM IS FOR REFERENCE ONLY AND MAY NOT CONTAIN THE EXACT EQUIPMENT SHOWN IN THE ATTACHED DRAWING PACKAGE.
B. INSTALLATION PROJECT MANAGER IS RESPONSIBLE FOR ENSURING THAT CABLE LENGTHS MEET THE SITE CONDITIONS. THE INSTALLATION PROJECT MANAGER IS RESPONSIBLE FOR ORDERING THE REQUIRED CABLES TO MEET EXISTING/PROPOSED SITE CONDITIONS.
C. ALL CABLE CONNECTIONS SHOWN ARE MAXIMUM LENGTH AND CANNOT BE EXTENDED.
D. THIRD PARTY ITEM CONNECTIONS TO BE VERIFIED WITH INSTALLATION PROJECT MANAGER.
E. POWER AND SIGNAL CABLES MUST BE RUN IN SEPARATE CONDUIT. REFER TO SHEET E2.



RUN LTR.	CONNECTION (POINT TO POINT)		CABLE LENGTH (MAX. USABLE)
A	POWER SYSTEM	PD	74'–9"
			74'–9"
B	PD	GANT	75'–1"
			75'–1"
			74'–9"
C	PD	CPU	77'–5"
			75'–1"
D	GANT	CPU	73'–9"
			74'–9"
E	GANT	CPU	73'–9"
F	CPU	SPK1	28'–6"
G	SPK2	CPU	48'–2"
H	GANT	INV	75'–0"
I	CPU	INV	75'–0"
J	REC	CPU	62'–0"
K	REC	CPU	63'–7"
			63'–7"
			63'–7"
L	GANT	REC	73'–9"

1 CABLE LENGTH DIAGRAM (FOR INTERNAL USE ONLY)
SCALE: NOT TO SCALE

02–13–13

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REV	DATE	DESCRIPTION	INT

HARRISBURG HOSPITAL
(AQUILION – RXL)
111 S FRONT ST
HARRISBURG, PA 17101

THESE TOSHIBA PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND SHALL NOT BE USED FOR ANY PURPOSE OTHER THAN THAT AGREED UPON BETWEEN TOSHIBA AND THE CUSTOMER. THESE SITE PLANS ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES.

DATE: 06–19–13
SCALE: NOT TO SCALE
PLANNER: C.B.S.
QUOTE: N/A
PROJECT NO.
130013698CTF

E4

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