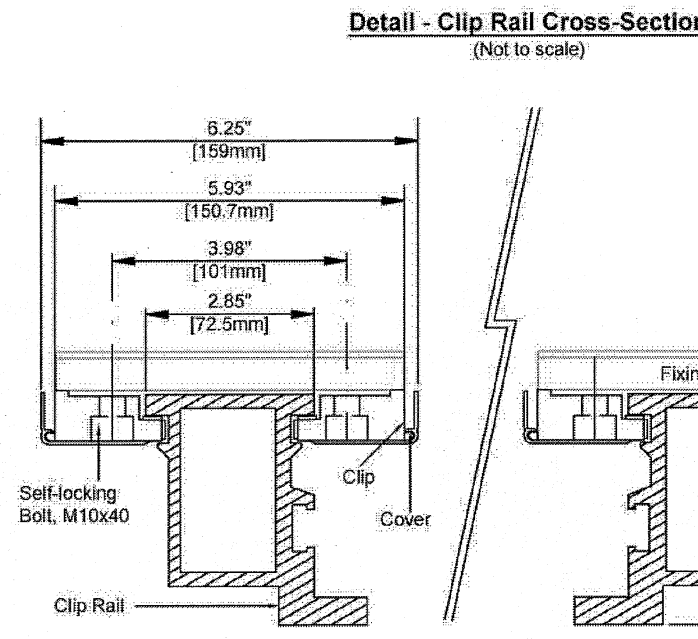


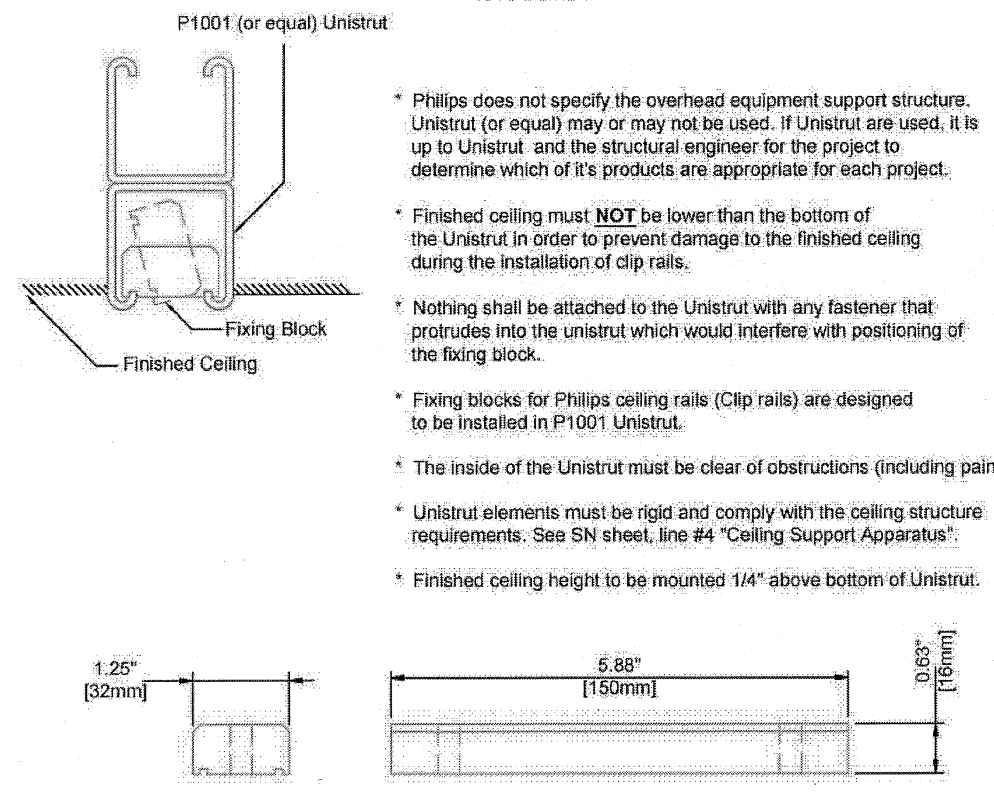
Monitor Suspension Support Forces	Tension Forces	Shear Forces
2 CRT Monitor Suspension (Best)	801 lbs per support (3573 N per support)	136 lbs per support (603 N per support)
3 CRT Monitor Suspension (Best)	754 lbs per support (3487 N per support)	177 lbs per support (787 N per support)
2 LCD Monitor Suspension (Best)	595 lbs per support (2513 N per support)	126 lbs per support (566 N per support)
3 LCD Monitor Suspension (Best)	608 lbs per support (2705 N per support)	137 lbs per support (609 N per support)
1 CRT Monitor Suspension (Hamburg)	570 lbs per support (2523 N per support)	120 lbs per support (534 N per support)
2 CRT Monitor Suspension (Hamburg)	773 lbs per support (3438 N per support)	192 lbs per support (854 N per support)
1 LCD Monitor Suspension (Hamburg)	453 lbs per support (2090 N per support)	111 lbs per support (494 N per support)
2 LCD Monitor Suspension (Hamburg)	858 lbs per support (3827 N per support)	163 lbs per support (725 N per support)

Tube Crane Support Forces	Tension Forces	Shear Forces
CS2 / CS4	956 lbs per support (4280 N per support)	585 lbs per support (2600 N per support)
CS2 / CS4 with Trauma Attachment	1068 lbs per support (4750 N per support)	585 lbs per support (2600 N per support)

(Support = 2 Screws into each Fixing Block)



Detail - Fixing Block for Philips Ceiling Rails (Clip Rails) (Not to scale)



- Philips does not specify the overhead equipment support structure. Unistrut (or equal) may or may not be used. If Unistrut are used, it is up to Unistrut and the structural engineer for the project to determine which of its products are appropriate for each project.
- Finished ceiling must NOT be lower than the location of the Unistrut in order to prevent damage to the finished ceiling during the installation of clip rails.
- Nothing shall be attached to the Unistrut with any fastener that protrudes into the Unistrut which would interfere with positioning of the fixing block.
- Fixing blocks for Philips ceiling rails (clip rails) are designed to be installed in P1001 Unistrut.
- The inside of the Unistrut must be clear of obstructions (including paint).
- Unistrut elements must be rigid and comply with the ceiling structure requirements. See SN sheet, line #4 "Ceiling Support Apparatus".
- Finished ceiling height to be mounted 1/4" above bottom of Unistrut.

C1 C2 (08.1)

PHILIPS

Project
EasyDiagnos Eleva
Maine Medical Center
Portland, ME
- Room 5

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Date Drawn: 02/10/20
Drawn By: JP Garabedian
Order: 6500090500001000

SD2

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED.

Item Number	Description	Detail Sheet
B (CB1)	460V, 3 phase 100 AMP circuit breaker with short trip for power from main hospital power source. Refer to "Branch Circuit & Wire Gauge Requirements" on sheet "ED1" for conductor sizes. Run power from circuit breaker to "ME" leaving an 8' tail at end. Location of circuit breaker per local code or owner's requirements. (Not shown on plan)	ED1 ED2
B (CB2)	460V, 3 phase 30 AMP circuit breaker with short trip for power from main hospital power source. Refer to "Branch Circuit & Wire Gauge Requirements" on sheet "ED1" for conductor sizes. Run power from circuit breaker to "MR" leaving an 8' tail at end. Location of circuit breaker per local code or owner's requirements. (Not shown on plan)	ED1 ED2
B (ST)	Shunt Trip (emergency off) - Large mushroom-head button on remote control station with contacts to operate feature of "CB1" and "CB2" simultaneously, (if required by local code or owner, and mandatory for VA and D.O.D. installations). (Not shown on plan)	
D (ME)	19 1/4" x 6" x 7" x 4" D flanged-edge terminal wall box with removable screw-type cover plate, surface mounted 75" A.F.F. to top of box. General contractor to cut top and/or bottom of box as required.	ED1
B (ML)	8" x 8" x 6" D ceiling box, flush mounted with removable screw-type cover plate.	
B (MS)	Grommet opening on top of "FR1". Exact size to be determined by local Philips Service.	ED1
E (FR1)	Existing floor trench raceway flush mounted with removable 1/4" thick steel cover plate. Existing raceway to be modified to accommodate flush mounting of ED Eleva Floorplate. Exact size to be verified.	ED1
B (TV)	8" x 8" x 4" D ceiling box, flush mounted with removable screw-type cover plate.	
B (IR)	6" x 4" x 4" D ceiling box, flush mounted with removable screw-type cover plate. Mount 1" R.L. box to box cover. Location shown is recommended and may be changed - verify relocation with local Philips Service.	
B (WV)	6" x 8" x 4" D wall box with removable screw-type cover plate, flush mounted 39" A.F.F. to bottom of box.	
B (IB)	4" x 4" x 4" D wall box, flush mounted with removable screw-type cover plate, 84" above finished floor to bottom of box. Location shown is recommended and may be changed - verify relocation with local Philips Service.	
E (R1)	Existing surface mounted riser duct with removable screw-type cover plate from finished floor to "WR1". Exact size and location to be determined in the field.	ED1
B (WR1)	Grommets cable opening on "WR2". Location shown is recommended and may be changed - verify relocation with local Philips Service.	ED1
E (WR2)	Existing wall raceway, surface mounted 6" above finished floor with removable screw-type cover plate. Exact size and location to be determined in the field.	ED1
B (WL)	10" x 4" D wall raceway, surface mounted above finished floor with removable screw-type cover plate. To connect to "WR1" as needed.	ED1
B (LS)	Door Switch - 120V, 5A switch limited to open when door is open. Mount in upper corner on strike side of main entry door(s) (Cooper no. 1865 or equivalent), (if required by local code or physicist of record). (Not shown on plan)	ED1
	RJ45 type ethernet 10/100/1000 Mbit network connector. Access through customer's network to VPN device capable of connecting to the Philips Remote Service Network (RSN) Gateway is needed. Refer to Sheet "N1" for RSN connectivity options. Locate within 10' of network card. Network Fiber Optic and Ethernet cabling, connections, wall boxes, patch panels, etc. are the responsibility of the purchaser. Philips assumes no responsibility for procurement, installation, or maintenance of the components.	N1

Item Number	Description	Detail Sheet
A	Finished and installed by Philips	
B	Provided by contractor/owner and installed by customer/owner	
C	Installed by contractor/owner	
D	Provided by Philips and installed by contractor	
E	Existing	
F	Future	
G	Owner	

PHILIPS

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E1

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General Electrical Information

1. General
The customer shall be solely responsible, at its expense, for preparation of the site, including any required electrical alterations. The site preparation shall be in accordance with this plan and specifications, the architectural/construction drawings and in compliance with all safety and electrical codes, the customer shall be solely responsible for obtaining all electrical permits from jurisdictional authority.

2. Materials and Labor
The customer shall be solely responsible, at its expense, to provide and install all electrical ducts, boxes, conduit, cables, wires, fittings, bushing, etc. As separately specified herein.

3. Electrical Ducts and Boxes
Electrical ducts and boxes shall be accessible and have removable covers. Floor ducts and boxes shall have water tight covers. Ducts shall be divided into as many as three separate channels by metal dividers, separately specified herein, to separate wiring and/or cables into groups as follows: Group A: power wiring and/or cables. Group B: signal and/or data and protective ground wiring and/or cables. Group C: x-ray high voltage cables, the use of 90 deg. elts is not acceptable. On ceiling duct and wall duct use 45 deg. bends at all corners. All intersecting points in duct to have cross over tunnels supplied and installed by contractor to maintain separation of cables.

4. Conduit
Conduit - to - point runs shall be as direct as possible. Empty conduit runs used for cables may require pull boxes located along the run. Consult with Philips. A pull wire or cord shall be installed in each conduit run. All conduits which enter duct prior to their termination point must maintain separation from other cables via use of dividers, cross over tunnels, or conduit supplied and installed by contractor from entrance into duct to exit from duct. Do not use flex conduit unless approved by Philips Service.

5. Conductors
All conductors, separately specified, shall be 75°C stranded copper, rung out and marked.

6. Disconnecting Means
A disconnecting means shall be provided as separately specified.

7. Warning Lights and Door Switches
"X-ray on" warning lights and x-ray termination door switches should be provided at all entrances to x-ray rooms as required by code.

8. Dimmer Switches
X-ray room lights should be provided with dimmer switches. (03.0)

Electrical Notes

1. The contractor will supply & install all breakers, shunt trip and incoming power to the breakers. The exact location of the breakers and shunt trips will be determined by the architect or contractor.

2. The contractor shall supply & install all pull boxes, raceways, conduit runs, stainless steel covers, etc. Conduit/raceways must be free from burrs and sharp edges over its entire length. A Greenlee pull string/measuring tape (part no. 435, or equivalent) shall be provided with conduit runs.

3. All pre-terminated, cut to length cables, will be supplied and installed by Philips. All cables to the breakers, will be supplied and installed by the contractor, subject to local arrangements.

4. Provide and install 4" - 2" (50 mm) diameter, Chase nipples between adjacent wall boxes. (not required if raceway installed above and below wall boxes)

5. Electrical raceway shall be installed with removable covers. The raceway should be accessible for the entire length. In case of non-accessible floors, walls and ceilings, an adequate number of access hatches should be supplied to enable installation of cabling. Approved consults may be substituted. All raceways will be designed in a manner that will not allow cables to fall out of the raceway when the covers are removed. In most cases, this will require above-ceiling raceway to be installed with the covers removable from the top. Raceway system as illustrated on this drawing are based upon length of furnished cables. Any changes in routing of raceway system could exceed maximum allowable length of furnished cables. Conduit or raceway above-ceiling must be kept as near to finished ceiling as possible.

6. Conduit sizes shall be verified by the architect, electrical engineer or contractor, in accordance with local or National Electrical Codes, whichever governs.

7. Convenience outlets are not illustrated. Their number and location are to be specified by the customer/architect.

8. All sections of raceway and conduit shall be grounded with an independent #6AWG green wire that is to be attached using solderless lugs. All ceiling mounted structural support members and ceiling plates shall also be grounded. All grounding connections, terminals, etc. shall be installed in a manner to provide accessibility for inspection, maintenance, repair, etc. (03.0)

Electrical Requirements

Electrical power distribution at the facility shall comply with:
Utilization voltages per ANSI C84.1 - 1982 range A.
Voltage to be supplied is 3 phase, 3 wire power and ground (delta or wye) unless otherwise noted in equipment specifications.
Phase conductors to be sized for instantaneous voltage drop per NEC 617 - 73 and Philips recommendations.
Neutral and ground conductors to be sized equivalently to phase conductors, unless otherwise noted.
Metal conduit shall not be used as the equipment ground conductor.
Clamping type surge suppressors are highly recommended in addition to standing facility lightning arrestors. Equipment to be protected from ANSI/IEEE C62.41-1980 location category B impulses.
ANSI / NFPA 70 - National Electrical Code
Article 250 - grounding
Article 517 - health care facilities
ANSI / NFPA 99 - health care facilities
NEMA standard XRO - power supply guideline for X-Ray machines

Power Quality Guidelines

1. Power supplied to medical imaging equipment must be separate from power feeds to air conditioning, elevators, outdoor lighting, and other frequently switched or motorized loads. Such loads can cause waveform distortion and voltage fluctuations that can hinder high quality imaging.

2. Equipment that utilizes the facility power system to transmit control signals (especially clock systems) may interfere with medical imaging equipment, thus requiring special filtering.

3. The following devices provide a high impedance, nonlinear voltage source, which may effect image quality:
Static UPS systems, Series filters, Power conditioners, and Voltage regulators.

4. Do not install such devices at the mains supply to medical imaging equipment without consulting Philips installation or service personnel.

5. Line Impedance is the combined resistance and inductance of the electrical system and includes the impedance of the power source, the facility distribution system, and all phase conductors between the source and the imaging equipment. Philips publishes recommended conductor sizes based on equipment power requirements, acceptable voltage drops, and assumptions about the facility source impedance. The minimum conductor size is based on the total line impedance and NEC requirements. Unless impedance calculations are performed by an electrical engineer, the recommended values must be used.

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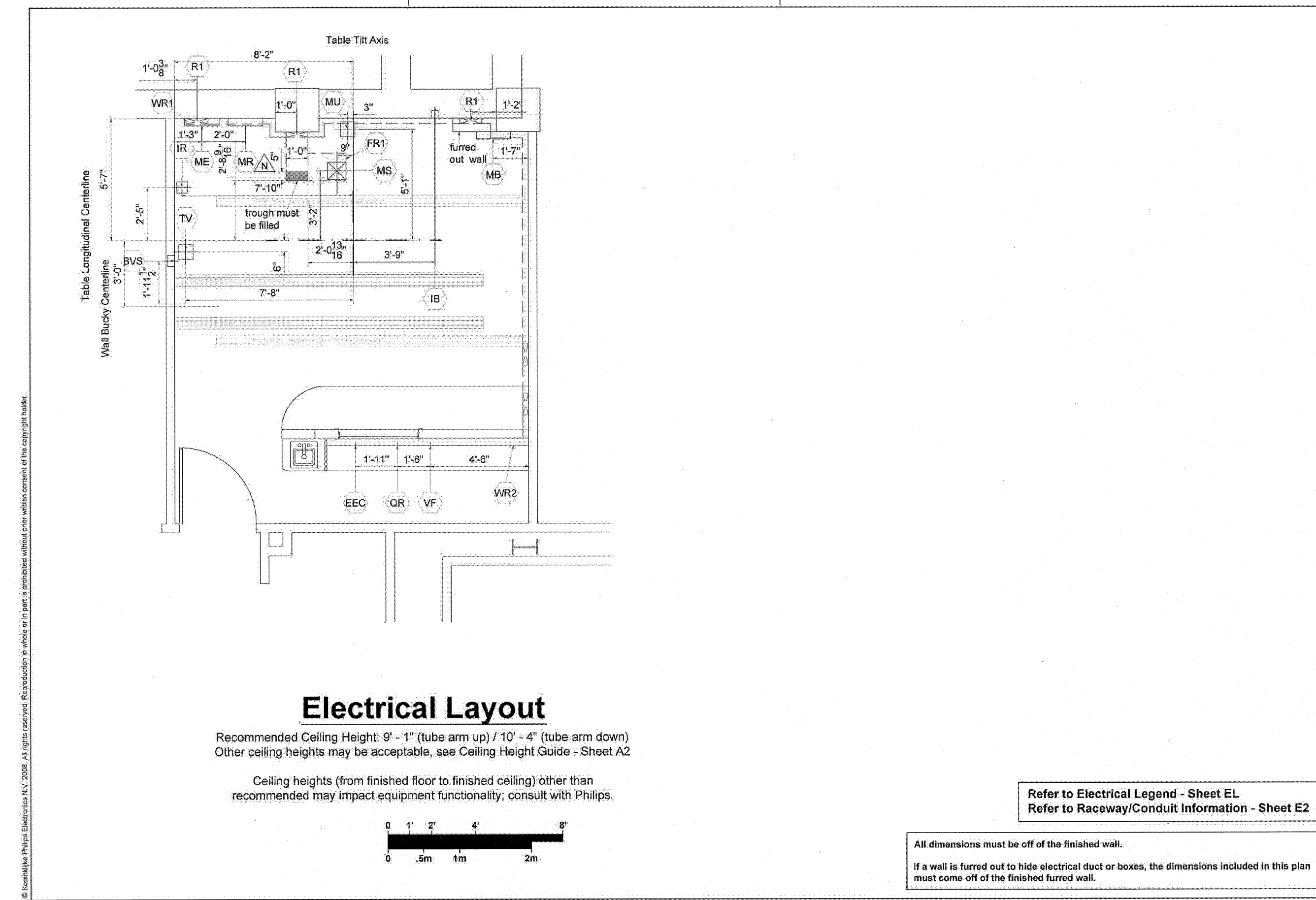
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EN

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E1

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SMRT

PROJECT NORTH
N
HUB ON 07/6

ISSUED FOR CONSTRUCTION 8.24.10

REV	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	8.24.10

GRAPHIC SCALE:
0' 1'
0 .5m 1m 2m

SCALE:
PROJECT MANAGER: DIV
DRAWN BY: DIV
DATE OF RECORD: DIV
PROJECT NO: 09022-02
DATE: 8.24.10
SHEET TITLE:
VENDOR EQUIPMENT
DRAWINGS SHEET 4

SHEET No.
Q-004
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