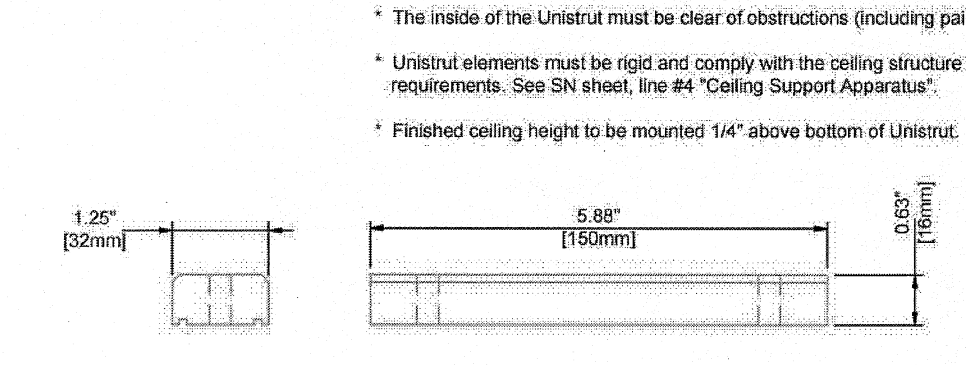
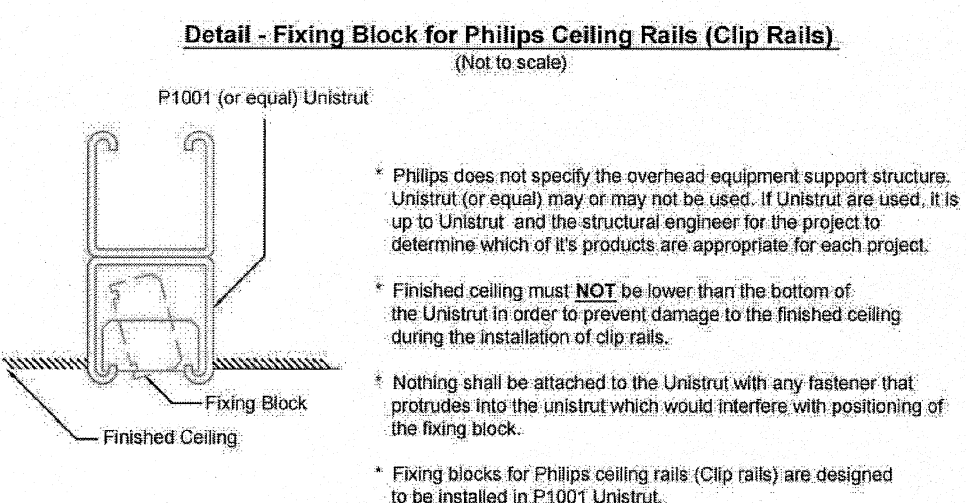
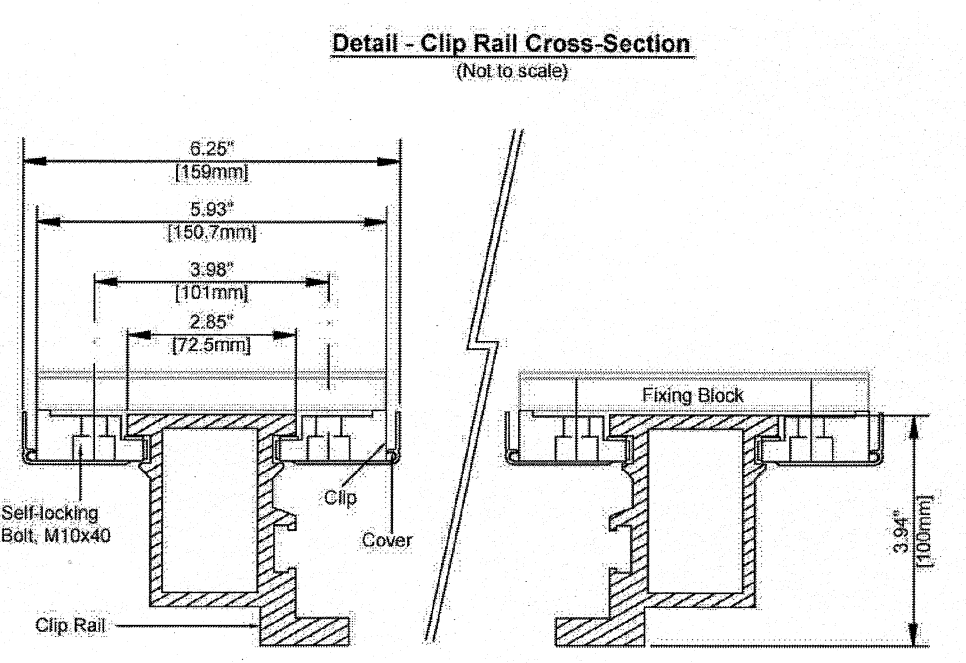


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Monitor Suspension Support Forces	Tension Forces	Shear Forces
2 CRT Monitor Suspension (Best)	801 lbs per support (2673 N per support)	136 lbs per support (605 N per support)
3 CRT Monitor Suspension (Best)	784 lbs per support (3487 N per support)	177 lbs per support (787 N per support)
2 LCD Monitor Suspension (Best)	555 lbs per support (2513 N per support)	128 lbs per support (580 N per support)
3 LCD Monitor Suspension (Best)	508 lbs per support (2282 N per support)	137 lbs per support (619 N per support)
1 CRT Monitor Suspension (Hamburg)	501 lbs per support (2229 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 (864 N per support)
1 LCD Monitor Suspension (Hamburg)	483 lbs per support (2180 N per support)	111 lbs per support (500 N per support)
2 LCD Monitor Suspension (Hamburg)	458 lbs per support (2067 N per support)	163 lbs per support (735 N per support)

Tube Crane Support Forces	Tension Forces	Shear Forces
CS2 / CS4	956 lbs per support (4290 N per support)	585 lbs per support (2600 N per support)
CS2 / CS4 with Trauma Attachment	1095 lbs per support (4900 N per support)	585 lbs per support (2600 N per support)

(Support = 2 Screws into each Fixing Block)



\* Philips does not specify the overhead equipment support structure. Unistrut (or equal) may or may not be used. If Unistrut is used, it is to be used in accordance with the 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 bottom 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.

**PHILIPS**

Project: **EasyDiagnost Elva**  
Maine Medical Center  
Portland, ME  
- Room 6

Philips Contacts:  
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Project Details:  
Drawing Number: N-ES10011A  
Date Drawn: 02/22/10  
Checked: JF/SJ/LEK/RW/B  
Order: 6500008093.001000  
Drawn By: JP\_Gabrielian

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Item Number	Description	Detail Sheet
480V	3 phase 100 AMP circuit breaker with shunt 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
480V	3 phase 30 AMP circuit breaker with shunt 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
ST	Shunt Trip (emergency off) - Large mushroom-head button on remote control station with contacts to operate features of "CS1" and "CS2" simultaneously. (If required by local code or owner, and mandatory for VA and O.C.D. installations). (Not shown on plan)	ED1
19	1/4"W x 6"H x 4"D flanged edge terminal wall box with removable screw-type cover plate, surface mounted 7" A.F.F. to top of box. General contractor to cut top and/or bottom of box as required.	ED1
MS	Grommet opening on top of "FR1". Exact size to be determined by local Philips Service.	ED1
FR1	Existing floor trench raceway flush mounted with removable 1/4" thick steel cover plate. Exact size and location to be determined in the field.	ED1
8	8"W x 8"L x 6"D ceiling box, flush mounted with removable screw-type cover plate.	ED1
8	8"W x 8"L x 4"D ceiling box, flush mounted with removable screw-type cover plate.	ED1
6	6"W x 6"L x 4"D ceiling box, flush mounted with removable screw-type cover plate. Mount L.R. box to box cover. Location shown is recommended and may be changed - verify relocation with local Philips Service.	ED1
4	4"W x 4"L 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.	ED1
VR1	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
VR2	Grommets cable opening on "WR2". Location shown is recommended and may be changed - verify relocation with local Philips Service.	ED1
VR	Existing wall raceway, surface mounted above finished floor with removable screw-type coverplate. Exact size and location to be determined in the field.	ED1
10	10"W x 4"D wall raceway, surface mounted above finished floor with removable screw-type coverplate.	ED1
VA	Warning Light - Provide an incandescent surface or flush mounted light fixture above door to indicate when X-Ray is on. Provides a 115V, 15A normally open relay in this fixture. (Not shown on plan)	ED1
DS	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. 1855 or equivalent). (If required by local code or physicist of record. (Not shown on plan)	ED1
NA	R455 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) Datacenter 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

**PHILIPS**

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ARCHITECTURE  
ENGINEERING  
PLANNING  
INTERIOR DESIGN  
COMMISSIONING

**SMRT**

PROJECT NORTH

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**General Electrical Information**

- 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.
- 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.
- Electrical Ducts and Boxes**  
Electrical ducts and boxes shall be accessible and have removable covers. Floor ducts and boxes shall have weatheright 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 degree elbows is not acceptable. On ceiling duct and wall duct use 45 degree bends at all corners. All intersecting points in duct to have cross over tunnels supplied and installed by contractor to maintain separation of cables.
- Conduit**  
Conduit point-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.
- Conductors**  
All conductors, separately specified, shall be 75°C stranded copper, run out and marked.
- Disconnecting Means**  
A disconnecting means shall be provided as separately specified.
- 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.
- Dimmer Switches**  
X-ray room lights should be provided with dimmer switches.

**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 lighting arresters. Equipment to be protected from ANSI/IEEE C62.41-1980 location category 5 impulses.  
ANSI / NFPA 70 - National Electrical Code  
Article 250 - grounding  
Article 517 - health care facilities  
ANSI / NFPA 96 - health care facilities  
NEMA standard XRD - power supply guideline for X-Ray machines

**Electrical Notes**

- 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.
- 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.
- All pre-terminated, out 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.
- Provide and install 4 - 2" (50 mm) diameter, Chase nipples between adjacent wall boxes. (not required if raceway installed above and below wall boxes)
- Electrical raceway shall be installed with removable covers. The raceway should be accessible for the entire length. In case of room-accessible floors, walls and ceilings, an adequate number of access hatches should be supplied to enable installation of cabling. Approved conduits 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 raceways above ceiling must be kept as near to finished ceiling as possible.
- Conduit sizes shall be verified by the architect, electrical engineer or contractor, in accordance with local or National Electrical Codes, whichever governs.
- Convenience outlets are not illustrated. Their number and location are to be specified by the customer/architect.
- All sections of raceway and conduit shall be grounded with an independent #8AWG 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.

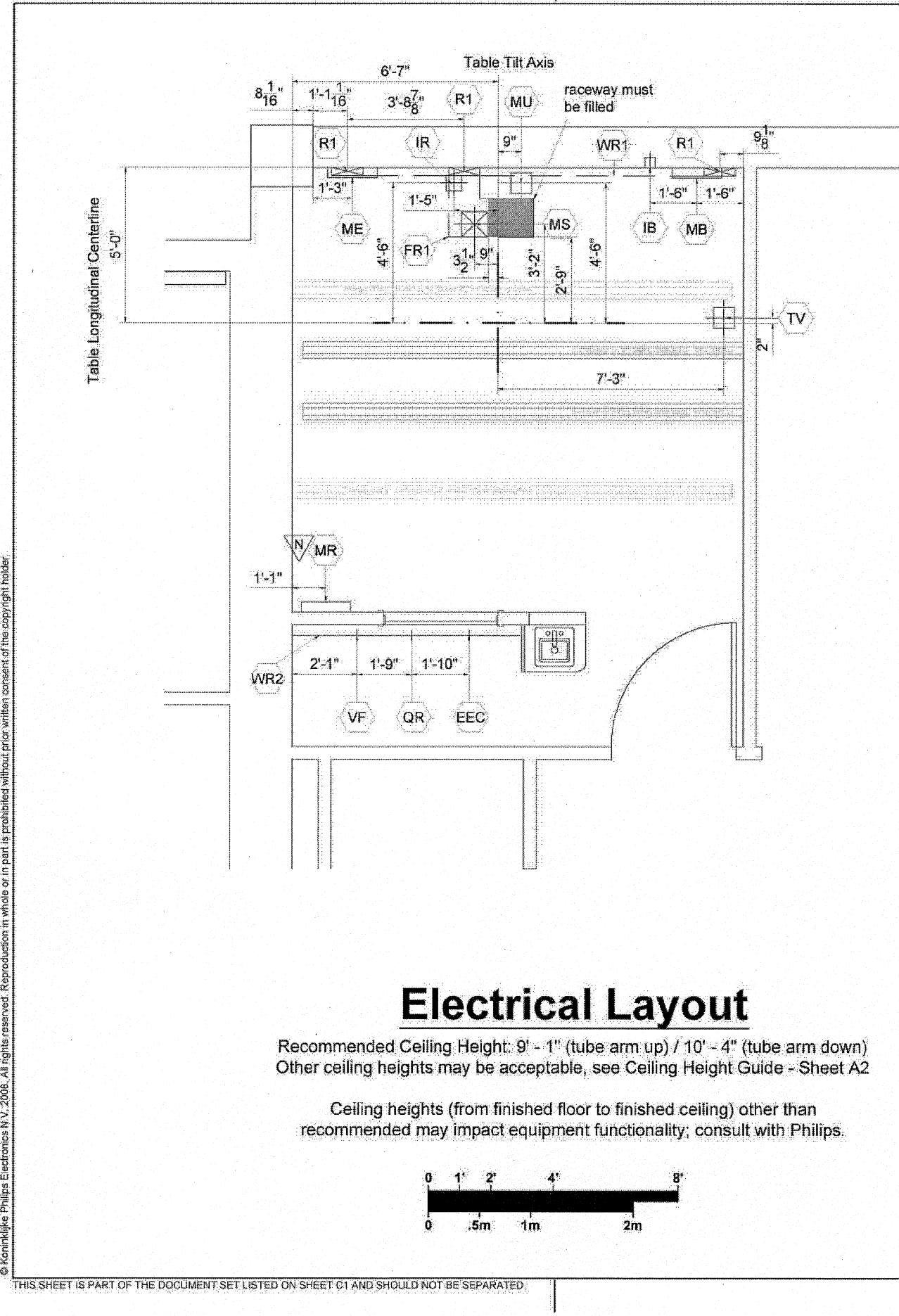
**PHILIPS**

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Maine Medical Center  
Portland, ME  
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**Electrical Layout**

Recommended Ceiling Height: 9' - 1" (tube arm up) / 10' - 4" (tube arm down)  
Other ceiling heights may be acceptable, see Ceiling Height Guide - Sheet A2

Ceiling heights (from finished floor to finished ceiling) other than recommended may impact equipment functionality; consult with Philips.

0" 1" 2" 4" 8"  
0 .5m 1m 2m

All dimensions must be off of the finished wall.  
If a wall is furred out to hide electrical duct or boxes, the dimensions included in this plan must come off of the finished furred wall.

Refer to Electrical Legend - Sheet EL  
Refer to Raceway/Conduit Information - Sheet E2

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Bramhall Radiology  
**FLUORO RENOVATIONS**  
PORTLAND, ME

ISSUED FOR CONSTRUCTION  
8.24.10

GRAPHIC SCALE:  
0" 1"

SCALE:  
PROJECT MANAGER: DIV  
K/DRAWN BY: DIV  
A/E OF RECORD: DIV  
PROJECT NO: 09022-02  
DATE: 8.24.10

SHEET TITLE:  
VENDOR EQUIPMENT  
DRAWINGS SHEET 10

SHEET NO:  
Q- 010

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