THE MEDICAL CENTER OF AURORA

CT / X-RAY INSTALLATION

1501 S. POTOMAC ST., AURORA, CO 80012

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation. **2009 IBC 105.4**

Failure to follow the approved plans may result in an hourly to review the field changes for code compliance.

PROJECT TEAM

OWNER:
MEDICAL CENTER OF AURORA
1501 S. POTOMAC STREET
AURORA, CO 80012
303.873.4895

ARCHITECT:
TOM THOMPSON
ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

DESIGNER / DRAFTSMAN:
THE DESIGN PLOT
PARKER, CO 80138
303-565-7282 CELL
303-338-7869
CONTACT:
TOM HECKER
thomas.hecker@healthonecares.com

ENGINEER:
CCRD PARTNERS
8301 E. PRENTICE AVENUE, SUITE 200
GREENWOOD VILLAGE, CO 80111
(303) 694-4755 OFFICE
(303) 694-5125 FAX
CONTACT: JON GRANT
jongr@ccrd.com

STRUCTURAL:
NEXT LEVEL
MATT NICHOLS
PRINCIPAL
(303) 260-9456 OFFICE
nlengineers.com

EQUIPMENT VENDOR:
GE HEALTHCARE
JACOB BRAVO
PROJECT MANAGER
(800) 568-0329 OFFICE
(303) 229-3519 CELL
jacob.bravo@ge.com

CONTRACTOR:
BFC CONSTRUCTION
ARVADA, CO
303.210.3851

CONTACT:
BRENT FLEETWOOD
BFC.BRENT@COMCAST.NET

VENDOR LIST

NURSE CALL

BECK'S COMMUNICATION SYSTEMS
7165 IVY ST
COMMERCE CITY, CO 80022
CONTACT: DANIEL (303) 916-9069

LOW VOLTAGE & DATA

GUARANTEE ELECTRIC
CONTACT: MIKE ANTHONY
SENIOR PROJECT MANAGER
(303) 586-9139
mike.anthony@geco.com

CONTROLLED DOOR ACCESS

BPA
CONTACT: STEVE PIERCE
(303) 708-9330
spierce@bpasecurities.com

SIGNAGE

ARTFORMS
CONTACT: DIANNE KERSTING
(303) 975-4641 ex. 1
diannek@artformsigns.com

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN STRICT CONFORMANCE WITH ALL LOCAL LAWS, ORDINANCES, RULES, REGULATIONS AND CODES OF THE GOVERNMENT AUTHORITIES HAVING JURISDICTION.
2. DIMENSIONS ARE TO FINISHED FACE OF GYPSUM WALL BOARD OR FACE OF EXISTING BASE BUILDING CONSTRUCTION, UNLESS NOTED OTHERWISE.
3. VERIFY ALL ROUGH-IN DIMENSIONS AND ELECTRICAL REQUIREMENTS FOR EQUIPMENT. COORDINATE OUTLET PLACEMENT WITH CASEWORK.
4. CONTRACTOR SHALL NOTIFY OWNER BEFORE COMMENCING WORK ON ANY ITEMS NOT CLEARLY DEFINED.
5. CHANGES OR DEVIATIONS FROM THE PLANS MADE WITHOUT THE CONSENT OF OWNER ARE UNAUTHORIZED.
6. G.C. TO PROVIDE SEALANT AROUND ALL PLUMBING FIXTURES, PIPING AND EQUIPMENT ABUTTING OR PENETRATING A WALL OR PARTITION. COLOR TO MATCH.
7. INSTALL FIRE-SAFING INSULATION, PUTTY OR FIRE-RATED INTUMESCENT-TYPE SEALANT (INCLUDING PIPE-SLEEVES, DAMMING BOARDS AND ACCESSORIES) AROUND ALL PENETRATIONS THROUGH FIRE-RATED PARTITIONS, FLOORS AND WALLS PER MANUFACTURER'S TESTED INSTALLATION FOR APPLICATION AND REQUIRED RATING.
8. ALL ELECTRICAL AND MECHANICAL DEVICES OR APPLIANCES INSTALLED ON THIS PROJECT SHALL BE UL LISTED.
9. WHERE REMODELING IS TO OCCUR, THE CONTRACTOR SHALL PRESENT A WORKABLE PHASING PLAN TO THE OWNER PRIOR TO COMMENCEMENT OF WORK WITHIN THE AFFECTED AREA. CONTRACTOR SHALL ALSO KEEP THE OWNER APPRISED OF ANY VARIATIONS IN PHASING PLAN THAT WILL AFFECT THE OPERATION OF THE OWNER'S BUSINESS.
10. CONTRACTOR SHALL PRESENT A WORKABLE PLAN TO MAINTAIN SECURITY AND SAFETY OF THE OWNER'S BUSINESS FOR AREAS AFFECTED BY CONSTRUCTION DURING THE ENTIRE PHASE OF CONSTRUCTION.
11. CONTRACTOR SHALL MINIMIZE DISRUPTION BY CONSTRUCTION WORK TO THE ONGOING BUSINESSES AND TRAFFIC IN THE VICINITY. CONSTRUCTION AREA SHALL BE ENCLOSED TO KEEP OTHER AREAS FREE OF DUST, DEBRIS & NOISE.
12. EMPLOYEES OR SUBCONTRACTORS OF THE GENERAL CONTRACTOR SHALL REFRAIN FROM PROFANE OR OFFENSIVE LANGUAGE WHILE ON THE PROJECT SITE AND SHALL REFRAIN FROM USING LOUD RADIOS OR OTHER MUSIC PLAYERS WHILE OWNERS AND/OR DESIGN TEAM IS ONSITE.
13. GENERAL CONTRACTOR SHALL COORDINATE APPROPRIATE PARKING ACCOMMODATIONS FOR EMPLOYEE AND SUBCONTRACTOR VEHICLES WITH OWNER PRIOR TO COMMENCEMENT OF WORK.
14. G.C. SHALL COORDINATE APPROPRIATE CONSTRUCTION STAGING AREAS AND TRASH REMOVAL. G.C. WILL BE RESPONSIBLE FOR OBTAINING A DUMPSTER AND TRASH PICKUP FROM JOB SITE ON A REGULAR BASIS.
15. SUBSTITUTIONS OF SPECIFIED PRODUCTS MAY NOT OCCUR UNLESS SPECIFICALLY NOTED ON DRAWINGS THAT "OR EQUAL" IS ACCEPTABLE. OWNER APPROVAL IS REQUIRED FOR ALL SUBSTITUTIONS CONSIDERED BY G.C. TO MEET "OR EQUAL" REQUIREMENTS PRIOR TO BID SUBMISSION/INSTALLATION.
16. APPROVAL OF SHOP DRAWINGS DOES NOT IMPLY APPROVAL OF A SUBSTITUTED COLOR, SIZE OR FUNCTION OF AN ITEM SPECIFIED ON THESE CONTRACT DOCUMENTS UNLESS ATTENTION IS SPECIFICALLY CALLED TO THE REVISION AND APPROVAL IS GIVEN.
17. G.C. SHALL KEEP TOILET FACILITIES ON SITE CLEAN AND USABLE.
18. NO PLUMBING CLEAN-OUTS SHALL EXTEND INTO ROOM MORE THAN IS MINIMALLY REQUIRED. NO PIPE SHALL BE EXPOSED AND THERE SHALL BE ESCUTCHEON PLATES AT ALL GYPSUM WALL BOARD PENETRATIONS.
19. ALL POWER/DATA OUTLETS, LIGHT SWITCHES & COVER PLATES TO BE CHANGED OUT TO WHITE WHERE NEEDED WITHIN THE SCOPE OF CONSTRUCTION.
20. GENERAL CONTRACTOR SHALL PROVIDE FIRE SPRINKLER DESIGN/BUILD AS PART OF SCOPE OF WORK. ALL SPRINKLER HEADS SHALL BE FLUSH MOUNTED CONCEALED STYLE TO MATCH HOSPITAL STANDARDS. SPRINKLER HEADS SHALL BE PLACED IN CENTER OF AFFECTED CEILING TILE.
21. STEEL FRAMING REQUIRED FOR ALL WALLS, SOFFITS & CASEWORK BACKING/SUPPORTS THROUGHOUT.
22. HOSPITAL WILL MANAGE THE LISTED VENDORS IN THEIR RESPECTIVE FIELDS AS NOTED ON THIS COVER SHEET. GENERAL CONTRACTOR TO NOT INCLUDE THEIR ASSOCIATED WORK IN THE SCOPE OF PROPOSAL.
23. GENERAL CONTRACTOR NEEDS TO BE FAMILIARIZED WITH EXISTING CONDITIONS TO PROPERLY ACCOUNT FOR THE NECESSARY COSTS ASSOCIATED WITH CONSTRUCTION.
24. NO CHANGE ORDERS WILL PERMITTED UNLESS OWNER INITIATED.
25. GENERAL CONTRACTOR TO REVIEW & INCLUDE ANY AND ALL NOTES AND LEGENDS CONTAINED WITHIN THE CONSTRUCTION DOCUMENT SET.

DRAWING INDEX

ARCHITECTURAL

A0.0	COVER SHEET
A1.10	DEMOLITION PLAN
A1.11	CEILING DEMOLITION PLAN
A1.12	FLOOR/FINISHES/SCHEDULES
A1.13	CT ENLARGED PLAN
A1.14	X-RAY ENLARGED PLAN
A1.15	ENLARGED CT RCP
A1.16	ENLARGED X-RAY RCP
A1.40	ELEVATIONS
A1.50	SECTIONS
A1.51	PARTITION CROSS SECTIONS

MECHANICAL, PLUMBING, ELECTRICAL

M-0.0	MECHANICAL LEGEND, GENERAL NOTES
M-1.0	HVAC DEMOLITION PLAN
M-1.1	HVAC PIPING DEMOLITION PLAN
M-2.0	HVAC PLAN
M-2.1	HVAC PIPING PLAN
M-3.0	MECHANICAL DETAILS
M-4.0	MECHANICAL SCHEDULES & CONTROLS
MP-0.0	MECHANICAL & PLUMBING SPECIFICATIONS
P-0.0	PLUMBING LEGEND, GENERAL NOTES
P-1.0	UNDERFLOOR PLUMBING DEMOLITION PLAN
P-1.1	PLUMBING DEMOLITION PLAN
P-1.2	MED GAS DEMOLITION PLAN
P-2.0	UNDERFLOOR PLUMBING PLAN
P-2.1	PLUMBING PLAN
P-2.2	MED GAS PLAN
P-3.0	PLUMBING SCHEDULES & DETAILS
E-0.0	ELECTRICAL LEGEND & GENERAL NOTES
E-1.0	POWER & SPECIAL SYSTEMS DEMO PLAN
E-1.1	LIGHTING DEMOLITION PLAN
E-2.0	POWER & SPECIAL SYSTEMS PLAN
E-2.1	LIGHTING PLAN
E-3.0	ELECTRICAL SCHEDULES
E-4.0	ONELINE/CURRENT CALCULATIONS
E-5.0	ELECTRICAL DETAILS

STRUCTURAL

S-1.0	X-RAY SUPPORT FRAMING

GENERAL ELECTRIC SITE SPECIFIC PLANS ATTACHED TO BACK OF DRAWING SET

SEPARATE FIRE SPRINKLER PERMIT REQUIRED
Due to the proposed work the general contractor is required to obtain the services of a fire sprinkler contractor to determine if a separate sprinkler permit is required. If it is determined that the spacing of the fire sprinkler heads is not in compliance, then a separate fire sprinkler permit is required. Approval of the documents is required prior to system installation or any request for inspection. A certificate of occupancy or final approval cannot be issued by the Building Division without this fire protection system. 2009 IFC, Section 105.7.1.

SEPARATE FIRE ALARM PERMIT REQUIRED
Due to the proposed work the general contractor is required to obtain the services of a fire alarm contractor to determine if a separate alarm permit is required. If it is determined that the spacing of the fire alarm devices is not in compliance, then a separate fire alarm permit is required. Approval of the documents is required prior to system installation or any request for inspection. A certificate of occupancy or final approval cannot be issued by the Building Division without this fire protection system. 2009 IFC, Section 105.7.5.

CODE INFORMATION SUMMARY

PROJECT NAME: CT X-RAY INSTALLATION

PROJECT ADDRESS: 1501 S. POTOMAC ST.
AURORA, CO 80012

CONSTRUCTION TYPE: ~~I-A~~

OCCUPANCY CLASSIFICATION: ~~GROUP I-2 HOSPITAL~~

AFFECTED SQUARE FOOTAGE: 1,225 SF

OCCUPANT LOAD FACTOR: ~~240 SF/OCC (INPATIENT)~~

OCCUPANT LOAD: ~~1,225 SF/240 = 5 OCCUPANTS (EXISTING)~~

SPRINKLER SYSTEM: EXISTING TO REMAIN

APPLICABLE CODES:
2009 INTERNATIONAL BUILDING CODE (IBC)
2009 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
2009 INTERNATIONAL MECHANICAL CODE (IMC)
2009 INTERNATIONAL PLUMBING CODE (IPC)
2009 INTERNATIONAL FIRE CODE (IFC)
2014 ~~2011~~ NATIONAL ELECTRICAL CODE (NEC)
2009 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
CHAPTER 22 BUILDINGS & REGULATIONS: THE AURORA BUILDING & ZONING CODES
CHAPTER 66 FIRE PREVENTION & PROTECTION REGULATIONS: THE AURORA BUILDING & ZONING CODES

EXITS: 3 EXITS ON GROUND LEVEL
8' EXIT ACCESS CORRIDORS

FIRE PROTECTION: EXISTING BUILDING IS FULLY SPRINKLED. AREAS AFFECTED BY WORK UNDER THIS CONTRACT SHALL MAINTAIN FIRE PROTECTION SYSTEM AND BE FULLY SPRINKLED ON COMPLETION

CODE NOTES

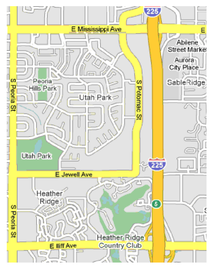
A. EXISTING SHAFTS, STAIRS, AND ELEVATORS ARE TO REMAIN WITHOUT MODIFICATION.

B. FIRE ALARM AND SPRINKLER SYSTEMS WILL BE MODIFIED TO ACCOMMODATE NEW PLAN.

C. FIRE RATED WALL ASSEMBLIES TO BE MODIFIED OR CONSTRUCTED ACCORDING TO PLANS & PER AHJ CODE REQUIREMENTS.

VICINITY MAP

MEDICAL CENTER OF
AURORA, SOUTH CAMPUS



POTOMAC ST.



KEY PLAN

City of Aurora Building Division
Project: ***XRAY and CT remodel***
Address: ***1501 S. Potomac St.***
Occupancy Group: ***I-2***
Construction Type: ***I-A***
RSN: ***1024436***
Permit: ***15-976795 LT***

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: ***wariffin***
Date: ***Jul 10, 2015***
2009 INTERNATIONAL CODES & 2014 NEC

RSN: ***1024436***
Permit #: ***15-976795 LT***

The Medical Center of Aurora
HealthONE

ED RENOVATION

MEDICAL CENTER OF AURORA
1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

ASSOCIATIONS

DESIGN PLOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

STATE OF COLORADO
TOM THOMPSON
305892
06.10.15
LICENSED ARCHITECT

PROJECT NO.: 14-04

DRAWN BY: TH BM
CHECKED BY: TT
SCALE:
DATE: 06/10/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
COVER SHEET

SHEET NO.:
A-0

DWG SHEET SIZE: 36" x 24"



DEMOLITION PLAN
1/4" = 1'

DEMOLITION LEGEND:	
	REMOVE WALL, CASEWORK, EQUIPMENT & FIXTURES AS INDICATED BY DASHED LINE
	EXISTING ELEMENT TO REMAIN
	REMOVE & DISPOSE OF EXISTING CASEWORK
	REMOVE EXISTING FLOORING AS INDICATED BY HATCH PATTERN, PREP SURFACE FOR NEW FLOORING
	REMOVE & SALVAGE EXISTING DOOR, FRAME & HARDWARE FOR OWNER AS INDICATED BY DASHED LINE
	REMOVE & DISPOSE OF EXISTING HANDRAIL & BUMPER GUARD AS INDICATED; INSTALL END CAPS AT NEW LOCATIONS
	EXISTING HEADWALL GASES, OUTLETS & WALL MOUNTED EQUIPMENT TO BE REMOVED, RE: FLOOR PLAN
	OUT OF SCOPE
	EXISTING 1 HR FIRE/SMOKE BARRIER TO REMAIN
	EXISTING 2 HR FIRE WALL TO REMAIN

KEY NOTES	
1	REMOVE & DISPOSE PORTION OF DIMENSIONED INTERIOR DRYWALL FOR NEW LEAD-LINED DRYWALL SHIELDING
2	REMOVE LOW RETURN GRILLE & ASSOCIATED DUCT WORK. PRESERVE NECESSARY RUN TO NEW ISOLATION ROOM.
3	REMOVE & SALVAGE SINK FOR OWNER. CAP PLUMBING TO TO NEAREST WALL CONNECTION.
4	REMOVE MED GAS HOUSING, CAP MED GAS AT MAINS, REMOVE CONNECTIONS AND PIPING
5	REMOVE TV & WALL MOUNTED EXAM ROOM ITEMS; SALVAGE FOR OWNER OR RELOCATION
6	MAINTAIN EXISTING 2 HOUR FIRE WALL. NEW LEAD-LINED GYP. BOARD TO BE INSTALLED ON FACE OF EXISTING WALL.
7	X-RAY EXISTING FLOOR DUCT TO BE REMOVED & REPLACED WITH NEW CONCRETE TO LEVEL FLOOR FINISH
8	REMOVE EXISTING EXTERNALLY MOUNTED WALL SUPPORT PANEL. PREP FOR NEW WALL FINISH.
9	SALVAGE ROLLING CART FOR OWNER
10	REMOVE & SALVAGE EXISTING APRON RACK FOR RELOCATION IN NEW PLAN

DEMOLITION GENERAL NOTES	
A.	REMOVE & SALVAGE EXISTING X-RAY EQUIPMENT FOR OWNER
B.	REMOVE EXISTING CONSTRUCTION AS INDICATED. TYPICAL WALL REMOVAL INCLUDES FINISHES, MECHANICAL, PLUMBING AND ELECTRICAL SYSTEMS CONTAINED THEREIN. REMOVE DOORS, CASEWORK, FRAMES, AND OTHER FIXTURES AS REQUIRED.
C.	WHERE OUTLETS, MOUNTING BRACKETS, EQUIPMENT, ETC., HAVE BEEN REMOVED, PATCH WALL & SKIM AS REQUIRED FOR NEW LEVEL AND FINISH.
D.	COORDINATE WITH THE OWNER ANY ITEMS TO BE STORED AND/OR RELOCATED.
E.	DEMOLITION WORK SHALL BE EXECUTED IN CONFORMANCE WITH ALL CODES AND AS SET FORTH BY ALL GOVERNING AUTHORITIES.
F.	NOTIFY PROJECT MANAGER IMMEDIATELY IF THE REMOVAL OF MECHANICAL, ELECTRICAL, PLUMBING SYSTEMS OR COMPONENTS WILL ADVERSELY AFFECT THE OPERATION OF MEP SYSTEMS OUTSIDE THE LIMIT OF DEMOLITION.
G.	EXIT EGRESS MUST BE MAINTAINED FOR ALL OCCUPIED AREAS OF THE BUILDING THROUGHOUT CONSTRUCTION.
H.	REPLACE OR REPAIR ANY EXISTING TO REMAIN FINISHES WHICH ARE DAMAGED DURING DEMOLITION (I.E. - CEILING GRID, CEILING TILE, WALL COVERING, FLOOR COVERINGS, ETC.)
I.	WHERE SINKS ARE SHOWN BEING REMOVED, CAP IN FLOOR OR NEAREST WALL. INSTALL CHROME COVERPLATE AT WALL LOCATIONS TO CONSEAL ALL WALL DAMAGE AND ALLOW ACCESS TO VALVES, SHUTOFFS, ETC.
J.	REFER TO MEP SET FOR DEMOLITION OF ELECTRICAL & MECHANICAL
K.	ALL EXISTING X-RAY EQUIPMENT TO BE REMOVED BY HOSPITAL SUPPLIED VENDOR.

POTOMAC ST.

KEY PLAN



NORTH

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: wqriffin
Date: Jul 10, 2015
2009 INTERNATIONAL CODES & 2014 NEC

RSN: 1024436
Permit #: 15-976795 LT

DWG SHEET SIZE: 36" x 24"

The Medical Center of Aurora
HealthONE

ED RENOVATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

ASSOCIATIONS

DESIGN LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

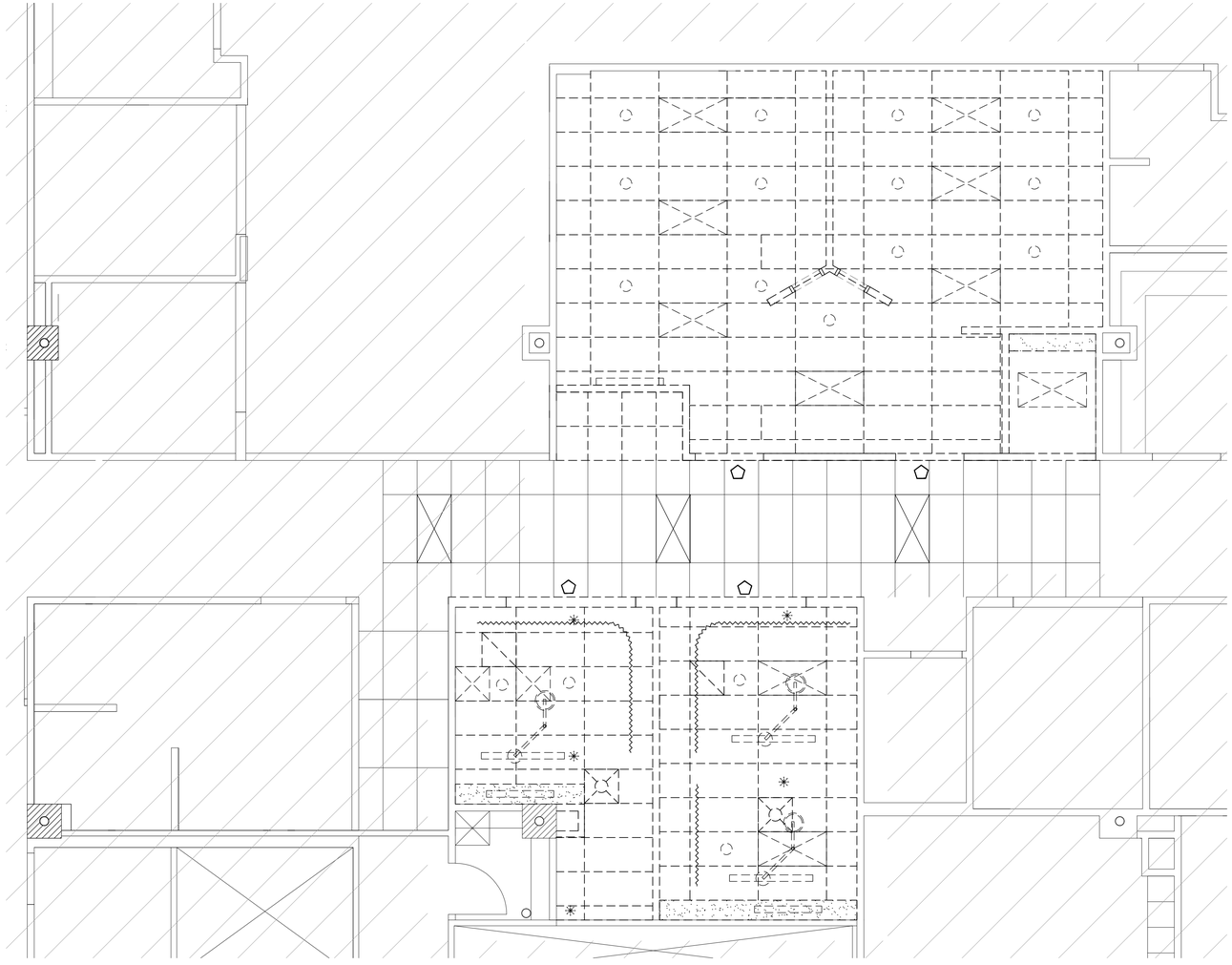
STATE OF COLORADO
TOM THOMPSON
305692
06.10.15
LICENSED ARCHITECT

PROJECT NO.: 14-04

DRAWN BY: TH BM
CHECKED BY: TT
SCALE: 1/4" = 1'
DATE: 06/10/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
DEMOLITION PLAN

SHEET NO.:
A1.10



DEMOLITION LEGEND:	
	EXISTING 2' X 2' LIGHT FIXTURE TO BE REMOVED & SALVAGED FOR RELOCATION
	EXISTING 2' X 2' LIGHT FIXTURE TO REMAIN
	EXISTING 2' X 2' SUPPLY DIFFUSER TO BE REMOVED & DISPOSED
	EXISTING 2' X 2' RETURN AIR REGISTER TO BE REMOVED & DISPOSED
	CEILING MOUNTED PRIVACY CURTAIN TRACK TO BE REMOVED & DISPOSED
	EXISTING 2' X 4' LIGHT FIXTURE TO BE REMOVED & DISPOSED
	CEILING MOUNTED SECURITY CAMERA TO REMAIN
	EXISTING CAN LIGHT FIXTURE TO BE REMOVED & DISPOSED
	EXISTING CEILING MOUNTED NURSE CALL LIGHT TO BE REMOVED & SALVAGED FOR RELOCATION
	EXISTING SPRINKLER HEAD TO BE RELOCATED AND/OR TERMINATED
	EXISTING SPRINKLER HEAD TO REMAIN
	EXISTING SMOKE DETECTOR TO REMAIN
	EXISTING TELECOM BOX TO REMAIN
	EXISTING SUSPENDED ACOUSTICAL CEILING SYSTEM TO REMAIN.
	EXISTING SUSPENDED ACOUSTICAL CEILING SYSTEM TO BE REMOVED
	REMOVE CEILING MOUNTED, OVERHEAD EXAM LIGHT; SALVAGE FOR HOSPITAL. REMOVE & DISPOSE OF ABOVE CEILING WOOD SUPPORT MEMBERS.

This sheet of drawings has not been reviewed for code compliance.

DEMOLITION GENERAL NOTES	
A.	REFER TO MEP SET FOR DEMOLITION OF ELECTRICAL CEILING COMPONENTS
B.	REMOVE & DISPOSE OF EXISTING AIR REGISTERS; INSTALL NEW DIFFUSERS IN NEW CEILING PLAN.
C.	REMOVE & DISPOSE OF ALL EXISTING WOOD FRAMED SUPPORT MEMBERS ABOVE CEILING IN BOTH PATIENT ROOMS 23/24 & 25.
D.	REMOVE & SALVAGE FOR OWNER ALL EXISTING CEILING MOUNTED UNISTRUT SYSTEMS IN X-RAY

NORTH

CEILING DEMOLITION PLAN
1/4" = 1'

RSN: *1024436*
Permit #: *15-976795 LT*

DWG SHEET SIZE: 36" x 24"

The Medical Center of Aurora
Health ONE

ED RENOVATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

ASSOCIATIONS

DESIGN DPLOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

STATE OF COLORADO
TOM THOMPSON
305692
06.10.15
LICENSED ARCHITECT

PROJECT NO.: 14-04

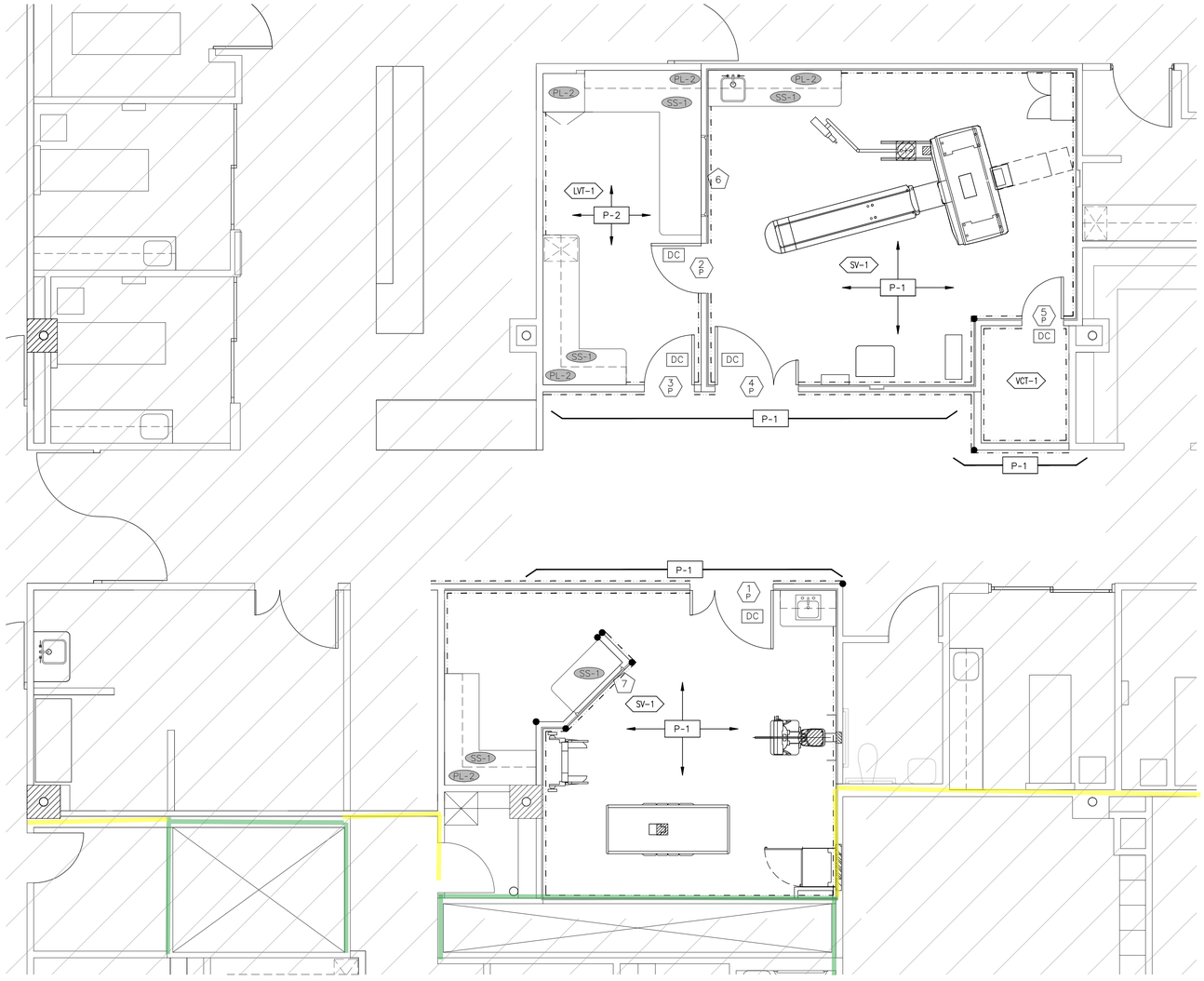
DRAWN BY: TH BM
CHECKED BY: TT
SCALE: 1/4" = 1'
DATE: 06/10/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:

CEILING DEMO PLAN

SHEET NO.:

A1.11



FINISH SPECIFICATIONS

FLOORING

VCT FLOORING

VCT-1: ARMSTRONG, IMPERIAL TEXTURE, COLOR: 51873 BRUSHED SAND (USE RB-1 AT ALL FLOOR/WALL CONNECTIONS)

VINYL FLOORING
LVT1 - ARMSTRONG, NATURAL CREATIONS, EARTHCUTS, 12"x24", COLOR: TP515 ROMA STONE CREME
LVT2 - ARMSTRONG, NATURAL CREATIONS, EARTHCUTS, 12"x24", COLOR: TP516 ROMA STONE NOCE
LVT3 - ARMSTRONG, NATURAL CREATIONS, EARTHCUTS, 12"x24", COLOR: TP771 ROMA STONE BLOSSOM

SHEET VINYL FLOORING
SV-1: SHEET VINYL TARKETT OPTIMA COLOR: 862 RAW IVORY W/6" COVED BASE W/ MATCHING WELDING ROD

B-2: 6" COVED BASE FINISHED WITH J-TRIM JOHNSONITE OPTIMA RAW IVORY

BASE

RB-1 - JOHNSONITE RUBBER WALL BASE, 4" COVE, COLOR: 129-SILK

RB-2 - JOHNSONITE MILLWORK REVEAL PROFILE RUBBER WALL BASE, 6 INCH, COLOR: 129-SILK

RB-3 - JOHNSONITE MILLWORK DIPLOMAT, CLAY

WALLS

P-1: (FIELD COLOR ROOM AREA) BENJAMIN MOORE ULTRASPEC, SEMI-GLOSS INTERIOR PAINT, 2 COATS ON WALLS. COLOR: 958 (OCEAN BEACH)

P-2: (DOOR FRAMES) BENJAMIN MOORE ULTRASPEC, SEMI-GLOSS INTERIOR PAINT, 2 COATS. COLOR: HC-45 (SHAKER BEIGE).

WP-1: 54" AFF (48" SHEETS) ACROVYN WALL PANELING -DESERT SAND

CASEWORK

PL-1: APPLY TO ALL COUNTER TOP LOCATIONS. FORMICA LAMINATE CARRARA ENVISION MATTE, 7994-58, USE BLACK 3MM EDGING.

PL-2: APPLY TO ALL VERTICAL PANEL SURFACES. WILSONART LAMINATE COLOR: SHAKER CHERRY, 7935-07. USE 3MM EDGING TO MATCH.

* USE WHITE MELAMINE FOR ALL INTERIOR CABINETS AND DRAWER SURFACES.

SS-1: CORIAN, PRIVATE COLLECTION COLOR: CLAM SHELL

SS-2: SAMSUNG, STARON TEMPEST: #FC158 COFFEE BEAN

WALL PROTECTION
WP-1 - 54" AFF (48" SHEETS) ACROVYN WALL PANELING -DESERT SAND.

ALCOVE, STORAGE ROOMS: INSTALL FACTORY CUT ACROVYN 48" SHEETS AT 54" AFF (ALLOWING FOR 6" WALL BASE) HEIGHT EDGE WALL PANEL ON 3/8" BACKER BOARD - ADHESIVE ATTACHED (NOTE ADHESIVE TO MEET GS-36 LOW VOC REQUIREMENTS). COLOR: "DESERT SAND". WAINSCOTT TRIM @ TOP, ACROVYN TRIM @ BOTTOM AND SEAMS AND AT END PANELS.

GENERAL NOTES

A.	REFER TO ELEVATION SHEET A1.40 FOR DOOR & WINDOW DETAILS.
B.	STEEL FRAMING REQUIRED FOR ALL WALLS, SOFFITS & CASEWORK BACKING/SUPPORTS THROUGHOUT.
C.	MAINTAIN EXISTING WALL RATINGS; INSTALL LEAD-LINED GYP. BOARD OVER EXISTING RATED WALL ASSEMBLY.
D.	SUPPLY NEW CABINET LOCKS AT LOCATIONS WHERE SHOWN ON ELEVATIONS
E.	GENERAL CONTRACTOR TO ADD ALLOWANCE FOR MOUNTING PATIENT CARE ITEMS FOR ALL EXAM/TREATMENT ROOMS

LEGEND:

XX-1	FLOORING TYPE
	54" AFF (48" SHEETS) ACROVYN WALL PANELING -DESERT SAND.
	48" ACROVYN CORNER GUARD
	HAND SANITIZER
XX-1	CASEWORK FINISHES SELECTIONS
	OUT OF SCOPE
	UNDER COUNTER FILE CABINET
	REPRESENTS LEAD-LINED WALL PARTITION

PATIENT CARE ITEMS (INCLUDING BUT NOT LIMITED TO)
1. SHARP CONTAINERS
2. PPE BOXES
3. PAPER TOWEL, SOAP, GEL DISPENSER
4. IV BAG HOOKS
5. TELEVISION
6. GLOVE DISPENSERS
7. DRY ERASE BOARD
8. BED BOARDS
9. EMERGENCY MEDICAL BOX
10. CLOCKS

1 Hr. rated wall

2 Hr. rated wall

DOOR SCHEDULE

DOOR NO.	DOOR SIZE			TYPE/LABEL	LOCK TYPE	HARDWARE	FRAME	JAMB DEPTH	REMARKS
	WIDTH	HEIGHT	DEPTH						
1	5'-0"	7'-0"	1-3/4"	A/NON RATED	P	PUSH LEVER SET	DOUBLE H.M.	4-7/8"	1/64" LEAD-LINED - SHAKER CHERRY, FLUSH ACROVYN DOOR WITH STAINLESS STEEL EDGE. DOOR CLOSURE W/ HOLD OPEN
2	3'-0"	7'-0"	1-3/4"	B/NON RATED	P	LEVER SET	R.H.-H.M.	4-7/8"	3/64" LEAD-LINED - SHAKER CHERRY, FLUSH ACROVYN DOOR WITH STAINLESS STEEL EDGE. DOOR CLOSURE W/ HOLD OPEN.
3	3'-0"	7'-0"	1-3/4"	C/NON RATED	P	LEVER SET	R.H.-H.M.	4-7/8"	SHAKER CHERRY, ACROVYN DOOR WITH STAINLESS STEEL EDGE W/ SITE GLASS
4	5'-0"	7'-0"	1-3/4"	A/NON RATED	P	PUSH LEVER SET	DOUBLE H.M.	4-7/8"	1/32" LEAD-LINED - SHAKER CHERRY, FLUSH ACROVYN DOOR WITH STAINLESS STEEL EDGE. DOOR CLOSURE W/ HOLD OPEN
5	3'-0"	7'-0"	1-3/4"	B/NON RATED	P	LEVER SET	L.H.R.-H.M.	4-7/8"	1/32" LEAD-LINED - SHAKER CHERRY, FLUSH ACROVYN DOOR WITH STAINLESS STEEL EDGE

SCHEDULED DOOR NUMBER
LOCK TYPE

DC - DOOR CLOSURE HARDWARE

DOOR TYPE DESCRIPTION NOTED ON ELEVATION SHEET, A4.0

SCHEDULED WINDOW NUMBER

LOCK TYPE
P - PASSAGE

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: wqriffin
Date: Jul 10, 2015
2009 INTERNATIONAL CODES & 2014 NEC

RSN: 1024436
Permit #: 15-976795 LT

NORTH

FLOOR/SCHEDULE/FINISHES PLAN
1/4" = 1'

DWG SHEET SIZE: 36" x 24"

The Medical Center of Aurora
Health ONE

ED RENOVATION

MEDICAL CENTER OF AURORA
1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

ASSOCIATIONS

DESIGN LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

STATE OF COLORADO
TOM THOMPSON
305892
06.10.15
LICENSED ARCHITECT

PROJECT NO.: 14-04

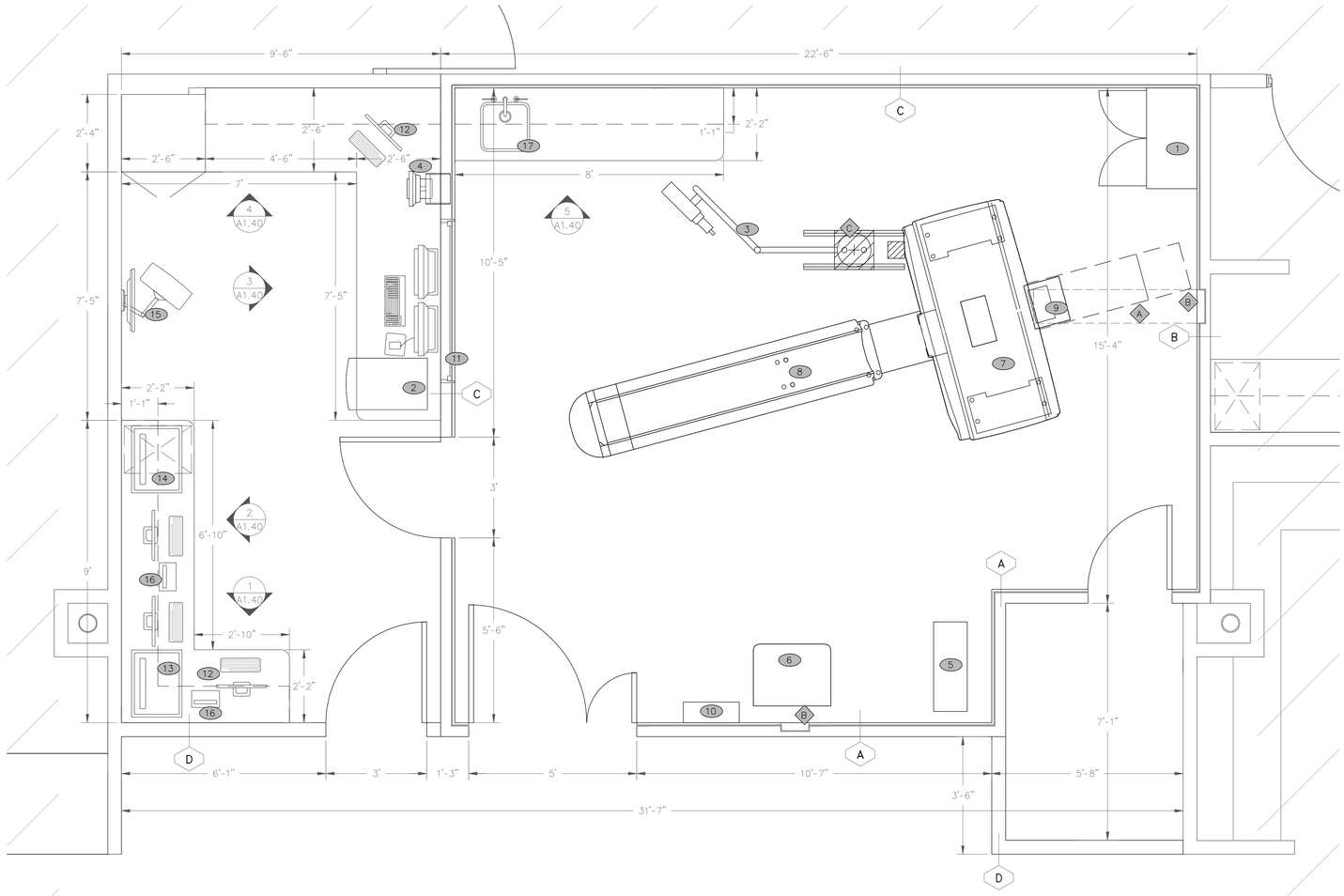
DRAWN BY: TH BM
CHECKED BY: TT
SCALE: 1/4" = 1'
DATE: 06/10/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:

FLOOR SCHEDULE FINISHES

SHEET NO.:

A1.12

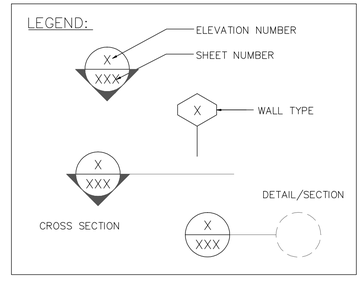


EQUIPMENT KEY NOTES	
1	STORAGE CABINET
2	T.I.O. CABINET
3	INJECTOR HEAD ON OVERHEAD COUNTERPOISED SUSPENSION
4	INJECTOR CONTROL & ELECTRONICS
5	UPS SYSTEM
6	POWER DISTRIBUTION UNIT
7	OPTIMA CT660 GANTRY
8	GT 2000 PATIENT TABLE
9	REAR CABLE COVER
10	MAIN DISCONNECT
11	OWNER SUPPLIED, CONTRACTOR INSTALL LEAD GLASS WINDOW & FRAME ASSEMBLY
12	PACS COMPUTER
13	HP PRINTER
14	CD BURNER
15	WALL MOUNTED COMPUTER (RAD TRACKER), KEYBOARD & MONITOR, PROVIDE BACKING FOR SUPPORT
16	SCANNER
17	NEW PLUMBING W/ FIXTURE LOCATION, SAW CUT FLOOR AS REQUIRED, RE: PLUMBING PLANS

This sheet of drawings has not been reviewed for code compliance.

GENERAL NOTES	
A.	ALL LEAD SHIELDING SHALL EXTEND FROM FLOOR TO 7'-0" A.F.F. ALL JOINTS BETWEEN LEAD SHALL BE OVERLAPPED. ALL CUTOUTS AND OPENINGS IN THE LEAD WILL BE BACKED AND BAFFLED WITH LEAD OF AT LEAST EQUIVALENT THICKNESS.
B.	CONTRACTOR MAY ELECT TO USE A THICKER LEAD RATING THAN SPECIFIED IF THE PARTITION/GLAZING IS MORE AVAILABLE OR LESS EXPENSIVE.
C.	REFER TO WALL SECTION SHEET A1.51 FOR PARTITION DETAILS.
D.	FLUSH MOUNT ALL NEW WALL DUCTS. PLACE LEAD LINING BEHIND DUCT TO MAINTAIN PROTECTION.
E.	REFER TO GE SITE SPECIFIC PLANS FOR MOUNTING PLATE LOCATIONS & REQUIREMENTS. REFER TO GE PLANS FOR ALL EQUIPMENT PLACEMENT DIMENSIONS.

KEY NOTES	
A	12" x 3" TRENCH DUCT W/ MINIMUM 2 DIVIDERS
B	10" x 3-1/2" FLUSH WALL DUCT W/ MINIMUM 2 DIVIDERS
C	INSTALL ABOVE CEILING MOUNTING PLATE FOR INJECTOR, RE: STRUCTURAL & MAVIG PLANNING GUIDE
D	INSTALL NEW CODE BLUE BUTTON - OWNER SUPPLIED VENDOR



RSN: *1024436*
Permit #: *15-976795 LT*

NORTH

CT ENLARGED PLAN
1/2" = 1'

DWG SHEET SIZE: 36" x 24"

The Medical Center of Aurora
Health ONE

ED RENOVATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

ASSOCIATIONS

DESIGN DOT LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

STATE OF COLORADO
TOM THOMPSON
305892
06.10.15
LICENSED ARCHITECT

PROJECT NO.: 14-04

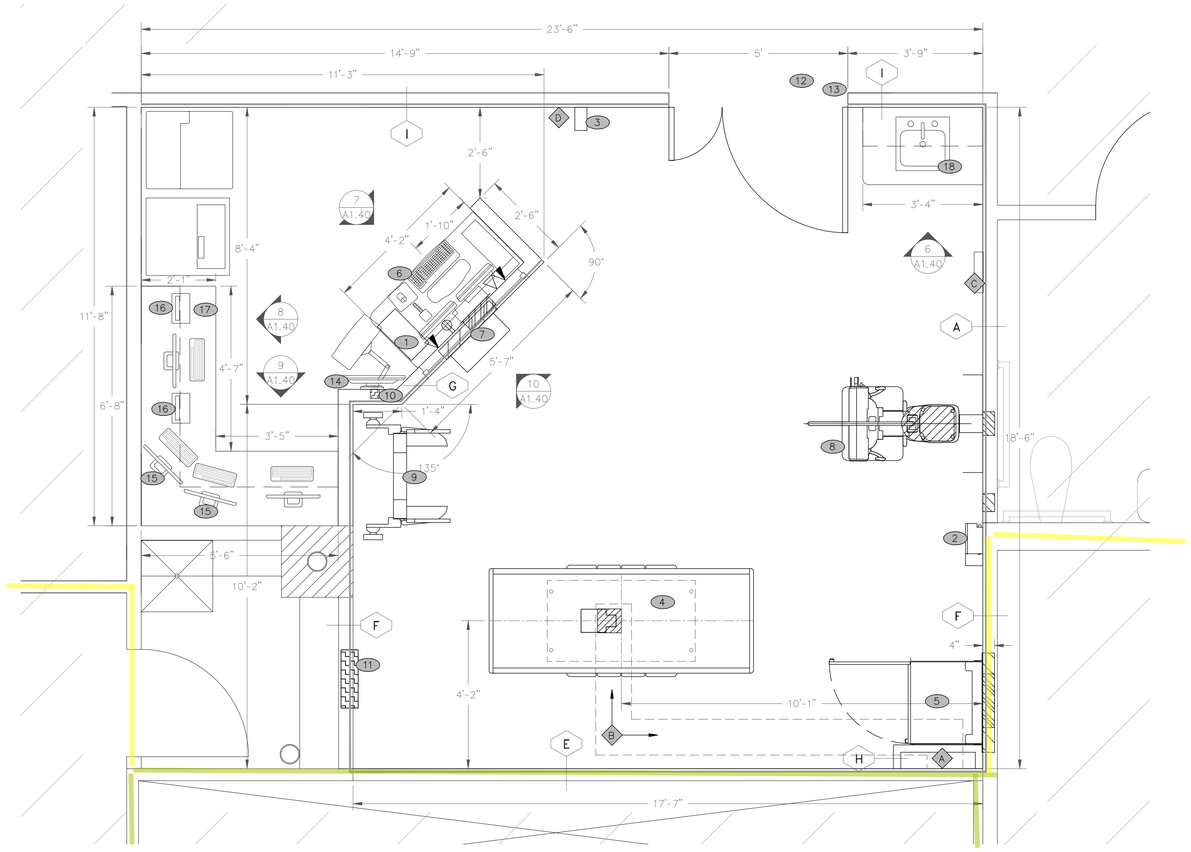
DRAWN BY: TH BM
CHECKED BY: TT
SCALE:
DATE: 06/10/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:

ENLARGED CT PLAN

SHEET NO.:

A1.13



EQUIPMENT KEY NOTES	
1	PARTIAL SYSTEM UNINTERRUPTIBLE POWER SUPPLY
2	TETHER INTERFACE BOX
3	DONGLE
4	XR 656 DIGITAL ELEVATING TABLE
5	SYSTEM CABINET, PROVIDE WALL BACKING AS SHOWN IN GE PLANS
6	OPERATOR'S CONSOLE
7	GRID HOLDER, PROVIDE WALL BACKING AS SHOWN IN GE PLANS
8	DIGITAL CHEST UNIT
9	IMAGE PASTING BARRIER
10	EMERGENCY OFF SWITCH
11	80 AMP MAIN DISCONNECT
12	X-RAY WARNING LIGHT
13	X-RAY WARNING LIGHT CONTROL PANEL
14	WALL MOUNTED COMPUTER (RAD TRACKER), KEYBOARD & MONITOR
15	PACS COMPUTER
16	SCANNER
17	HP PRINTER
18	NEW PLUMBING W/ FIXTURE LOCATION, SAW CUT FLOOR AS REQUIRED, RE: PLUMBING PLANS

KEY NOTES	
A	FURR-OUT WALL FOR FLOOR TO CEILING ELECTRICAL CHASE, RE: ELECTRICAL. DIMENSION AS NEEDED TO ACCOMMODATE NEW CABLING. RE: GE PLANS
B	12" x 3" TRENCH DUCT W/ MINIMUM 2 DIVIDERS. NOTE: THIS PORTION OF FLOOR IS NOT SLAB ON GRADE, BASEMENT LEVEL BELOW. FLOOR CONSISTS OF A 2" STEEL DECK + 4" OF CONCRETE TOPPING. TAKE CARE NOT TO EXCEED TRENCH DEPTH TO AVOID CUTTING OR DAMAGING METAL FORM DECK.
C	INSTALL SALVAGED APRON RACK, PROVIDE WALL BACKING
D	INSTALL NEW CODE BLUE BUTTON - OWNER SUPPLIED VENDOR

GENERAL NOTES	
A.	ALL LEAD SHIELDING SHALL EXTEND FROM FLOOR TO 7'-0" A.F.F. ALL JOINTS BETWEEN LEAD SHALL BE OVERLAPPED. ALL CUTOUTS AND OPENINGS IN THE LEAD WILL BE BACKED AND BAFFLED WITH LEAD OF AT LEAST EQUIVALENT THICKNESS.
B.	CONTRACTOR MAY ELECT TO USE A THICKER LEAD RATING THAN SPECIFIED IF THE PARTITION/GLAZING IS MORE AVAILABLE OR LESS EXPENSIVE.
C.	REFER TO WALL SECTION SHEET A1.51 FOR PARTITION DETAILS.
D.	MAINTAIN EXISTING WALL RATED ASSEMBLIES AS IDENTIFIED IN DEMOLITION PLAN. UPGRADE AS NEEDED WHERE DEFICIENCIES ARE PRESENT.
E.	FLUSH MOUNT ALL NEW WALL DUCTS. PLACE LEAD LINING BEHIND DUCT TO MAINTAIN PROTECTION.
F.	REFER TO GE SITE SPECIFIC PLANS FOR MOUNTING PLATE LOCATIONS & REQUIREMENTS. REFER TO GE PLANS FOR ALL EQUIPMENT PLACEMENT DIMENSIONS.

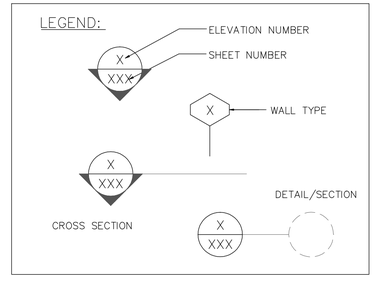
1 Hr. rated wall

2 Hr. rated wall

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wqriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

LEGEND:



NORTH

X-RAY ENLARGED PLAN
1/2" = 1'

DWG SHEET SIZE: 36" x 24"

The Medical Center of Aurora
HealthONE

ED RENOVATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

ASSOCIATIONS

DESIGN PLOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

STATE OF COLORADO
TOM THOMPSON
305892
06.10.15
LICENSED ARCHITECT

PROJECT NO.: 14-04

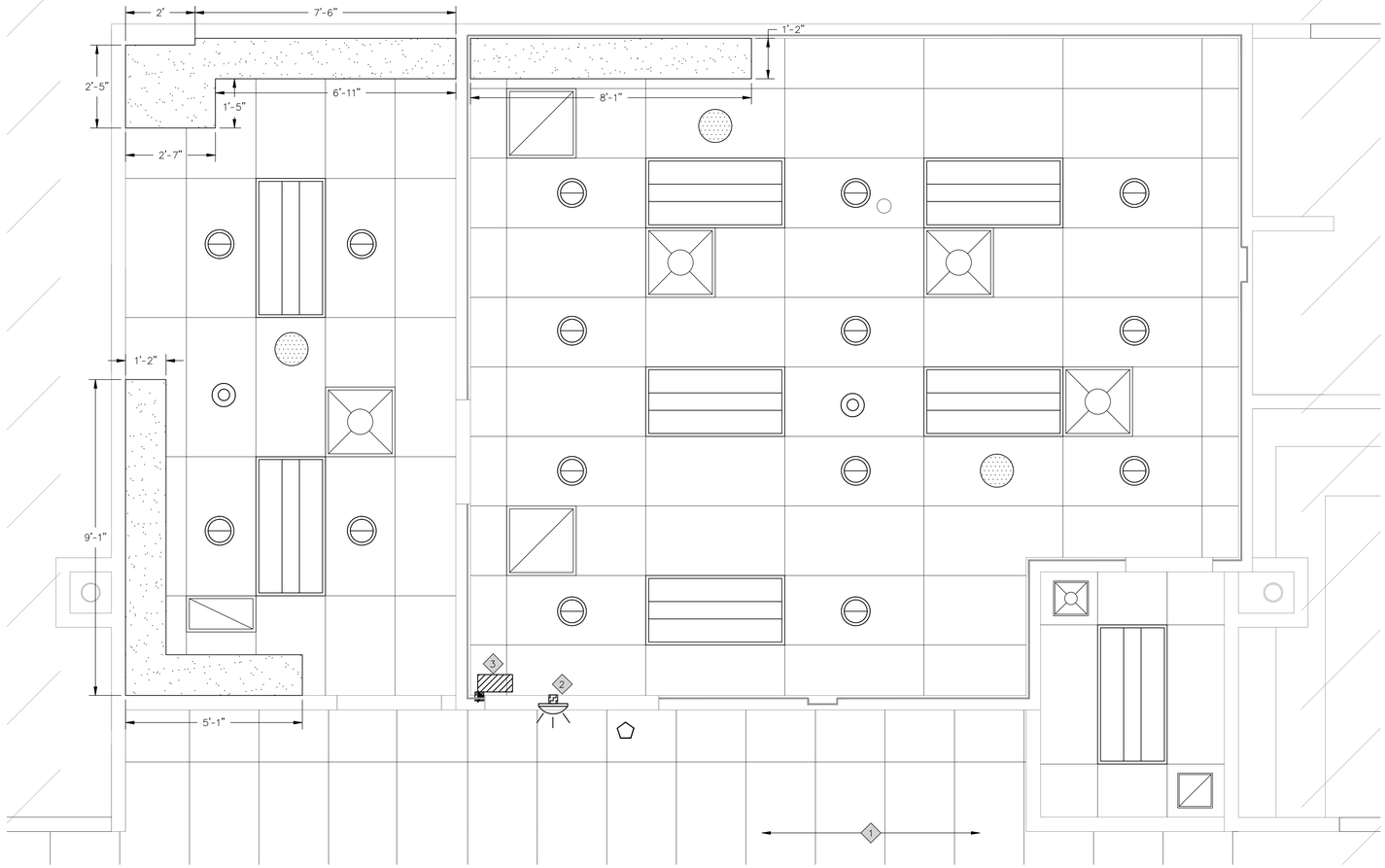
DRAWN BY: TH BM
CHECKED BY: TT
SCALE:
DATE: 06/10/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:

ENLARGED X-RAY PLAN

SHEET NO.:

A1.14



CEILING LEGEND:	
	NEW 6" CAN DIMMABLE, LED DOWNLIGHT
	NEW 2'X4' LED LIGHT FIXTURE
	NEW 2'X2' LED LIGHT FIXTURE
	NEW EXECUTONE NURSE CALL / CODE BLUE DOME LIGHT.
	CEILING SPEAKER
	SMOKE DETECTOR
	CHANGE ALL SPRINKLER HEADS TO FLUSH MOUNT TYPE. RE: NOTE 19 ON A0.0.
	SUSPENDED ACOUSTICAL CEILING SYSTEM.
	GYPSUM BOARD CEILING OR SOFFIT TO TOP OF CABINET (OR AS NOTED) RE: ELEVATIONS.
	CEILING HEIGHT DESIGNATION PER AREA. WHERE NO HEIGHT IS DESIGNATED, 9'-0" SHALL BE THE DESIGNATED HEIGHT.
	NEW AIR SUPPLY REGISTER LOCATION, REFER TO MEP PLANS FOR PLACEMENT
	NEW RETURN AIR REGISTER LOCATION, REFER TO MEP PLANS FOR PLACEMENT

KEY NOTES	
1	TIE NEW CEILING GRID CEILING SYSTEM INTO EXISTING GRID LAYOUT
2	X-RAY WARNING LIGHT
3	X-RAY WARNING LIGHT CONTROL PANEL

GENERAL NOTES	
A.	ALL NEW CEILING TILES USE: VINYL COATED, WASHABLE DRYWALL CEILING TILES
B.	REFER TO ENGINEERED LIGHTING PLAN FOR LIGHT FIXTURE SELECTION SPECIFICATIONS.
C.	REPLACE ALL PENDANT STYLE FIRE SPRINKLER HEADS WITH FLUSH MOUNT STYLE TO MATCH BUILDING STANDARDS. MUST HAVE SAME ACTIVATION TIME AS OTHER HEADS IN THE SAME ZONE.
D.	CONTRACTOR SHALL COMPARE THIS REFLECTED CEILING PLAN WITH ELECTRICAL LIGHTING PLANS, MECHANICAL SUPPLY, AND EXHAUST PLANS. THE CONTRACTOR SHALL REPORT ANY OMISSIONS OR INCONSISTENCIES WITH THE PROJECT MANAGER.
E.	INSTALL NEW CEILING GRID ACCORDING TO RCP. FIRE SPRINKLERS SHALL BE SECURED IN ORIGINAL LOCATION DURING CEILING REPLACEMENT, UNLESS CONSTRAINED BY NEW CONSTRUCTION, THEN FIELD ADJUST HEADS AS NECESSARY.
F.	REFERENCE ELECTRICAL LIGHTING FIXTURE SCHEDULE PLAN FOR SPECIFICATIONS.
G.	CONTRACTOR TO SUPPLY FIRE ALARM VENDOR FOR CODE COMPLIANT PLANS REGARDING FIRE ALARM & SUPPRESSION DEVICES.
H.	REFER TO ELECTRICAL LIGHTING PLAN FOR EMERGENCY POWERED/CRITICAL CIRCUIT LIGHTING LOCATIONS.
I.	CONTRACTOR TO APPLY NEAREST EXISTING EMERGENCY POWERED CIRCUITS TO NEW LIGHTING PLAN TO MEET CODE REQUIREMENTS.
J.	NEW INJECTOR TO BE INSTALLED TO CONTRACTOR SUPPLIED STRUCTURAL PLATE ABOVE CEILING OF CT. INJECTOR MODEL TBD.

NORTH

CT ENLARGED RCP
1/2" = 1'

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wqriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

DWG SHEET SIZE: 36" x 24"

The Medical Center of Aurora
Health ONE

ED RENOVATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

ASSOCIATIONS

DESIGN dp LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

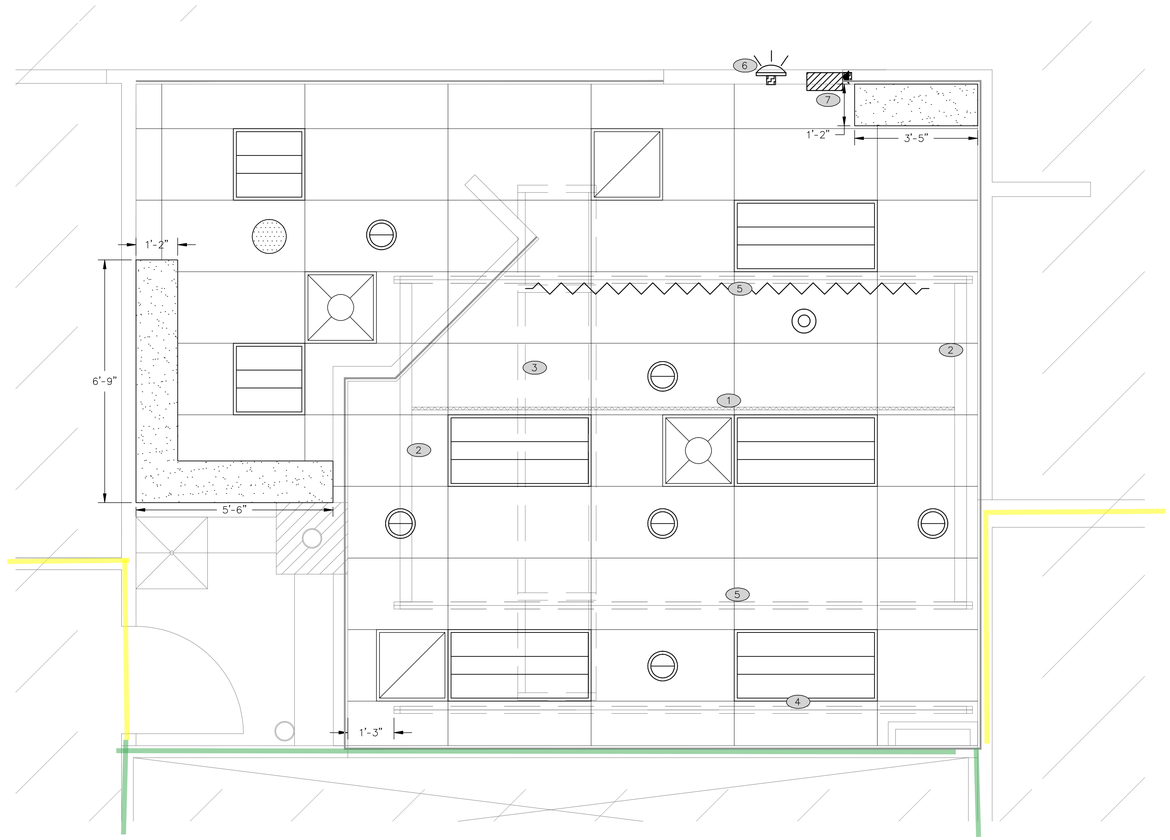
STATE OF COLORADO
TOM THOMPSON
305692
06.10.15
LICENSED ARCHITECT

PROJECT NO.: 14-04

DRAWN BY: TH BM
CHECKED BY: TT
SCALE:
DATE: 06/10/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
ENLARGED CT RCP

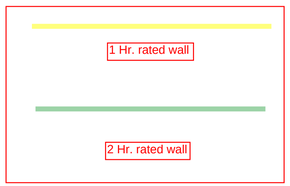
SHEET NO.:
A1.15



CEILING LEGEND:	
	NEW 6" CAN DIMMABLE, LED DOWNLIGHT
	NEW 2'X4' LED LIGHT FIXTURE
	NEW 2'X2' LED LIGHT FIXTURE
	NEW EXECUTONE NURSE CALL / CODE BLUE DOME LIGHT.
	CEILING SPEAKER
	SMOKE DETECTOR
	CHANGE ALL SPRINKLER HEADS TO FLUSH MOUNT TYPE. RE: NOTE 19 ON A0.0.
	SUSPENDED ACOUSTICAL CEILING SYSTEM.
	GYPSUM BOARD CEILING OR SOFFIT TO TOP OF CABINET (OR AS NOTED) RE: ELEVATIONS.
	CEILING HEIGHT DESIGNATION PER AREA. WHERE NO HEIGHT IS DESIGNATED, 9'-0" SHALL BE THE DESIGNATED HEIGHT.
	NEW AIR SUPPLY REGISTER LOCATION, REFER TO MEP PLANS FOR PLACEMENT
	NEW RETURN AIR REGISTER LOCATION, REFER TO MEP PLANS FOR PLACEMENT
	NEW CEILING MOUNTED PRIVACY CURTAIN TRACK

EQUIPMENT KEY NOTES	
1	LONGITUDINAL DRIVE BELT (1" WIDE)
2	INJECTOR HEAD ON OVERHEAD COUNTERPOISED SUSPENSION
3	XT RADIOGRAPHIC SUSPENSION WITH INBOARD MOUNTING
4	CABLE DRAPE RAIL
5	LONGITUDINAL STATIONARY RAIL FOR XT SUSPENSION
6	X-RAY WARNING LIGHT
7	X-RAY WARNING LIGHT CONTROL PANEL

GENERAL NOTES	
A.	NEW CEILING TILES THROUGHOUT USE: VINYL COATED, WASHABLE DRYWALL CEILING TILES
B.	REFER TO ENGINEERED LIGHTING PLAN FOR LIGHT FIXTURE SELECTION SPECIFICATIONS.
C.	REPLACE ALL PENDANT STYLE FIRE SPRINKLER HEADS WITH FLUSH MOUNT STYLE TO MATCH BUILDING STANDARDS. MUST HAVE SAME ACTIVATION TIME AS OTHER HEADS IN THE SAME ZONE.
D.	CONTRACTOR SHALL COMPARE THIS REFLECTED CEILING PLAN WITH ELECTRICAL LIGHTING PLANS, MECHANICAL SUPPLY, AND EXHAUST PLANS. THE CONTRACTOR SHALL REPORT ANY OMISSIONS OR INCONSISTENCIES WITH THE PROJECT MANAGER.
E.	INSTALL NEW CEILING GRID ACCORDING TO RCP. FIRE SPRINKLERS SHALL BE SECURED IN ORIGINAL LOCATION DURING CEILING REPLACEMENT, UNLESS CONSTRAINED BY NEW CONSTRUCTION, THEN FIELD ADJUST HEADS AS NECESSARY.
F.	REFERENCE ELECTRICAL LIGHTING FIXTURE SCHEDULE PLAN FOR SPECIFICATIONS.
G.	CONTRACTOR TO SUPPLY FIRE ALARM VENDOR FOR CODE COMPLIANT PLANS REGARDING FIRE ALARM & SUPPRESSION DEVICES.
H.	REFER TO ELECTRICAL LIGHTING PLAN FOR EMERGENCY POWERED/CRITICAL CIRCUIT LIGHTING LOCATIONS.
I.	CONTRACTOR TO APPLY NEAREST EXISTING EMERGENCY POWERED CIRCUITS TO NEW LIGHTING PLAN TO MEET CODE REQUIREMENTS.
J.	REFER TO STRUCTURAL PLAN FOR INSTALLATION OF NEW UNISTRUT CEILING SUPPORT SYSTEM.



City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wqriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

NORTH

X-RAY ENLARGED RCP
1/2" = 1'

DWG SHEET SIZE: 36" x 24"

The Medical Center of Aurora
Health ONE

ED RENOVATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

ASSOCIATIONS

DESIGN DPLOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

STATE OF COLORADO
TOM THOMPSON
305692
06.10.15
LICENSED ARCHITECT

PROJECT NO.: 14-04

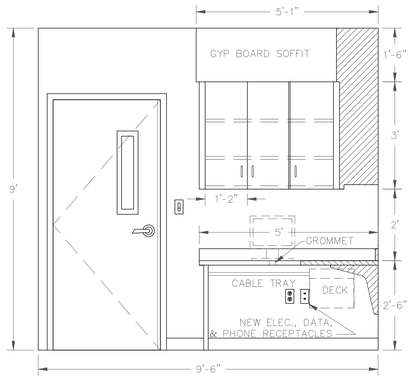
DRAWN BY: TH BM
CHECKED BY: TT
SCALE:
DATE: 06/10/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:

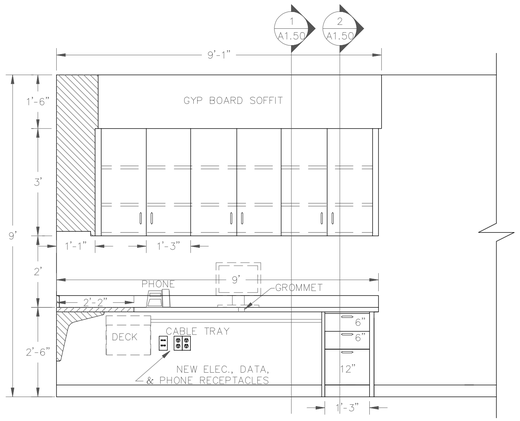
ENLARGED X-RAY RCP

SHEET NO.:

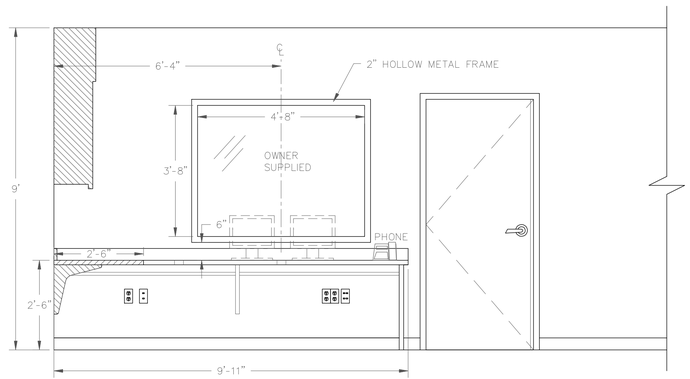
A1.16



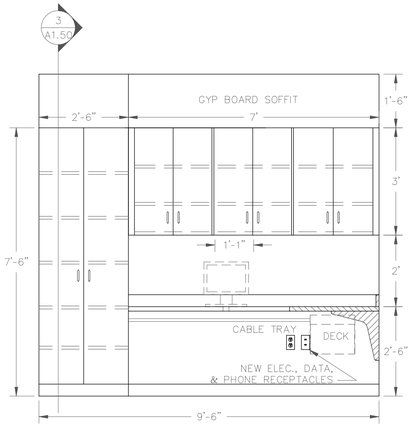
1 A1.40 CT CONTROL ROOM
SCALE: 1/2" = 1'



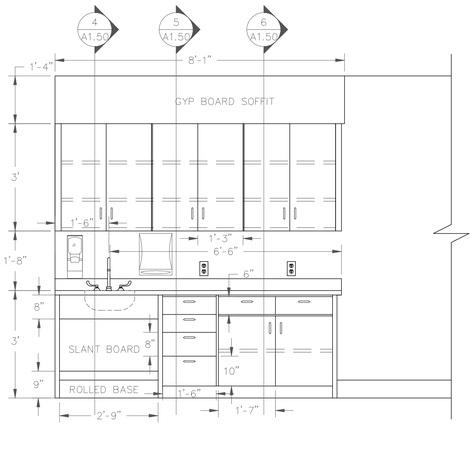
2 A1.40 CT CONTROL ROOM
SCALE: 1/2" = 1'



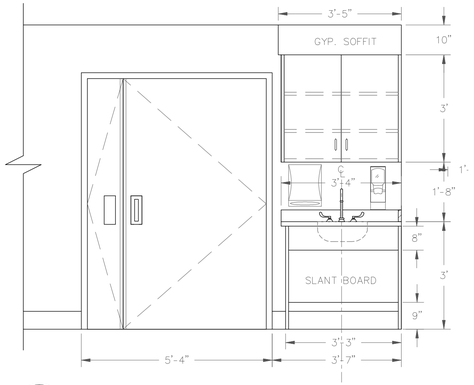
3 A1.40 CT CONTROL ROOM
SCALE: 1/2" = 1'



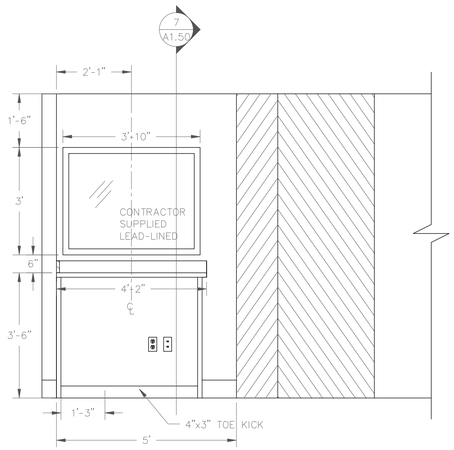
4 A1.40 CT CONTROL ROOM
SCALE: 1/2" = 1'



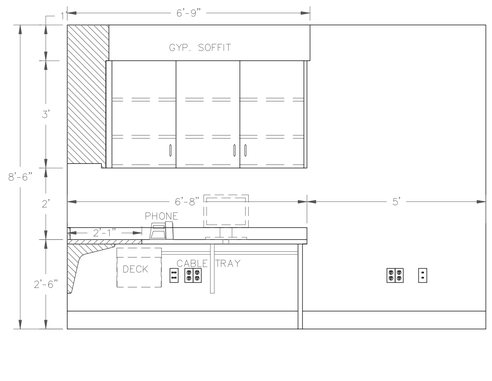
5 A1.40 CT SCAN ROOM
SCALE: 1/2" = 1'



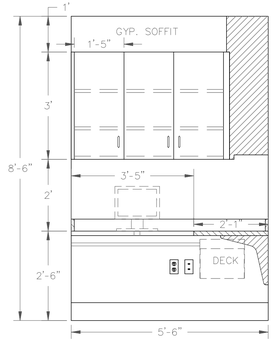
6 A1.40 X-RAY SCAN ROOM
SCALE: 1/2" = 1'



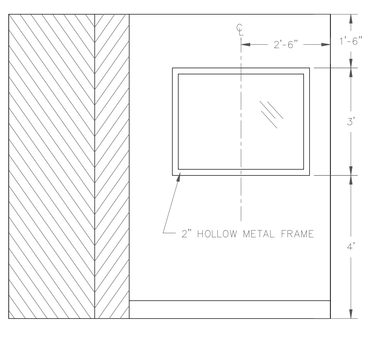
7 A1.40 X-RAY CONTROL RM
SCALE: 1/2" = 1'



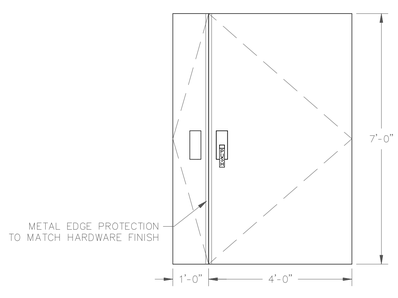
8 A1.40 X-RAY CONTROL RM
SCALE: 1/2" = 1'



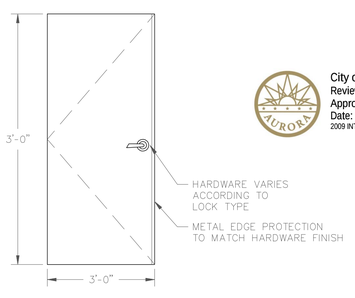
9 A1.40 X-RAY CONTROL RM
SCALE: 1/2" = 1'



10 A1.40 X-RAY VIEW WALL
SCALE: 1/2" = 1'



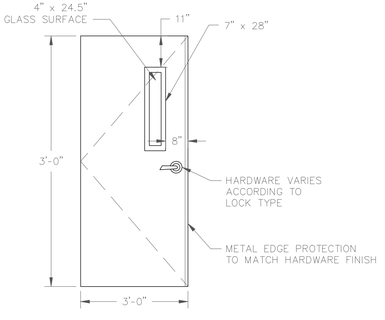
A DOUBLE DOOR
1/2" = 1'-0"



B SINGLE FLUSHE DOOR
1/2" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wqriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*



C SINGLE DOOR W/ SITE
1/2" = 1'-0"

DWG SHEET SIZE: 36" x 24"

The Medical Center of Aurora
Health ONE

ED RENOVATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

ASSOCIATIONS

DESIGN LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

STATE OF COLORADO
TOM THOMPSON
305692
06.10.15
LICENSED ARCHITECT

PROJECT NO.: 14-04

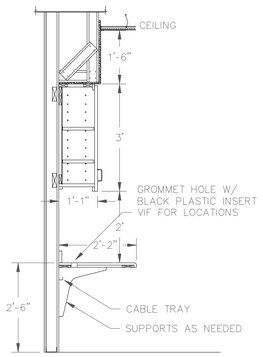
DRAWN BY: TH BM
CHECKED BY: TT
SCALE:
DATE: 06/10/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:

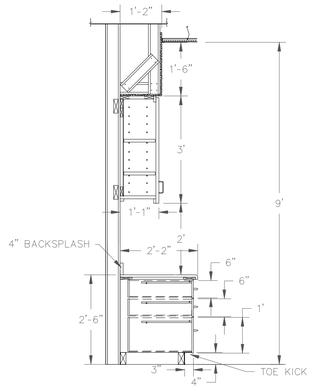
ELEVATIONS

SHEET NO.:

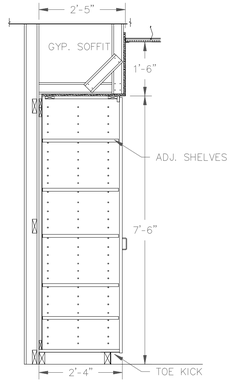
A1.40



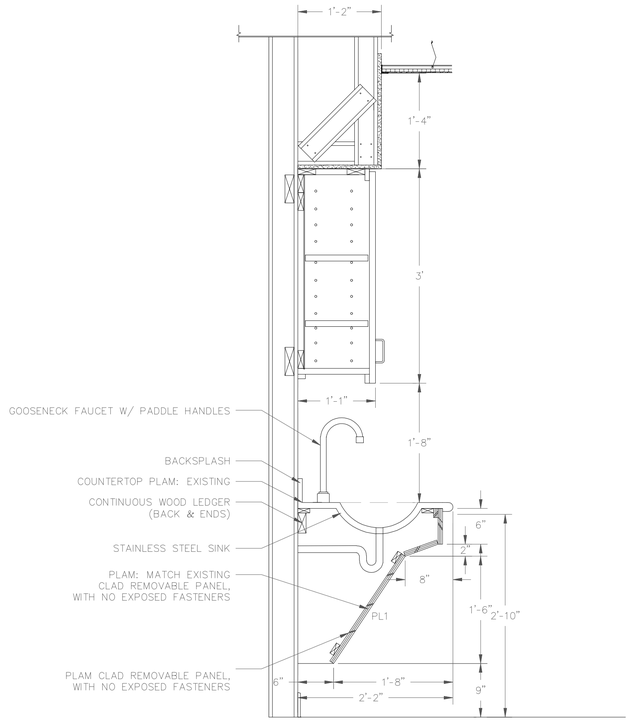
1 A1.50 CT CONTROL ROOM
SCALE: 1/2" = 1'



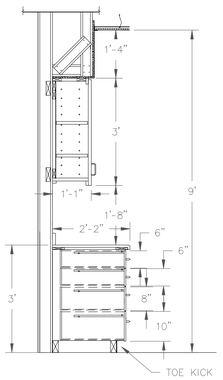
2 A1.50 CT CONTROL ROOM
SCALE: 1/2" = 1'



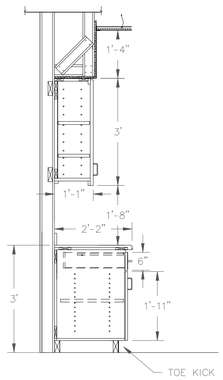
3 A1.50 CT CONTROL ROOM
SCALE: 1/2" = 1'



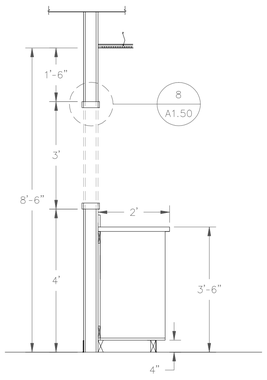
4 A1.50 CT SCAN ROOM
SCALE: 1/" = 1'



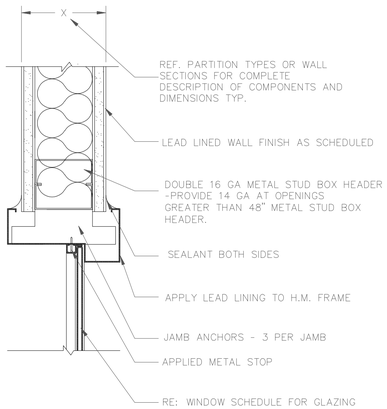
5 A1.50 CT SCAN ROOM
SCALE: 1/2" = 1'



6 A1.50 CT SCAN ROOM
SCALE: 1/2" = 1'



7 A1.50 X-RAY CONTROL RM
SCALE: 1/2" = 1'



8 A1.50 LEAD LINED GLAZ/FRAME
SCALE: 3" = 1'

DWG SHEET SIZE: 36" x 24"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wgriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
HealthONE

ED RENOVATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

ASSOCIATIONS

DESIGN LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

STATE OF COLORADO
TOM THOMPSON
305892
06.10.15
LICENSED ARCHITECT

PROJECT NO.: 14-04

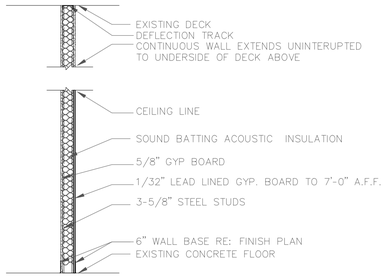
DRAWN BY:	TH BM
CHECKED BY:	TT
SCALE:	
DATE:	06/10/2015
ISSUED FOR:	CONSTRUCTION
REVISIONS:	

SHEET TITLE:

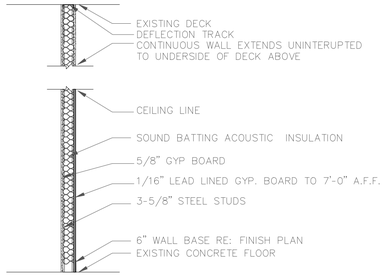
SECTIONS

SHEET NO.:

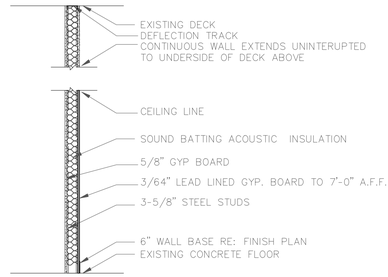
A1.50



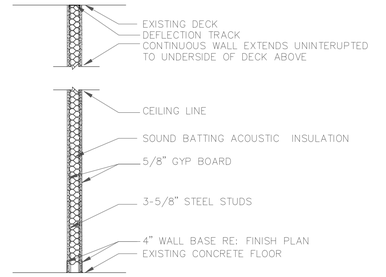
A 1/32" LEAD LINED/NON-RATED
1/2" = 1'-0"



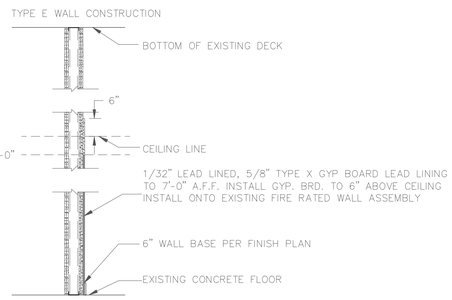
B 1/16" LEAD LINED/NON-RATED
1/2" = 1'-0"



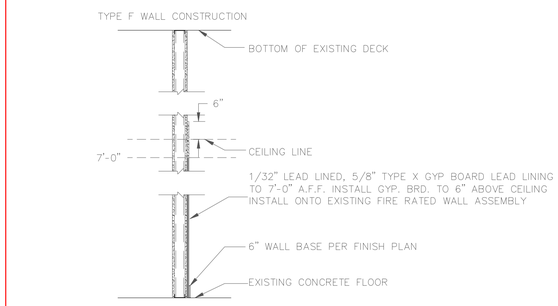
C 3/64" LEAD LINED/NON-RATED
1/2" = 1'-0"



D NON-RATED
1/2" = 1'-0"



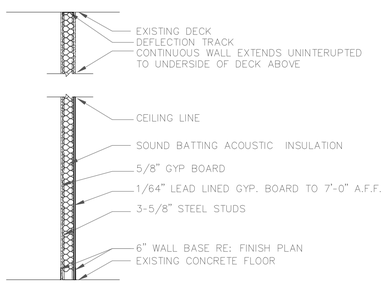
E LEAD LINED/ ~~2 HR FIRE BARRIER~~
1/2" = 1'-0"



F LEAD LINED/ ~~1 HR SMOKE BARRIER~~
1/2" = 1'-0"

G 1/64" LEAD LINED/NON-RATED
1/2" = 1'-0"

H NON-RATED
1/2" = 1'-0"



I 1/64" LEAD LINED/NON-RATED
1/2" = 1'-0"

DWG SHEET SIZE: 36" x 24"

The Medical Center of Aurora
Health ONE

ED RENOVATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

ASSOCIATIONS

DESIGN LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

STATE OF COLORADO
TOM THOMPSON
305692
06.10.15
LICENSED ARCHITECT

PROJECT NO.: 14-04

DRAWN BY: TH BM
CHECKED BY: TT
SCALE:
DATE: 06/10/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:

PARTITION SECTIONS

SHEET NO.:

A1.51

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wariffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

GENERAL NOTES - ALL HVAC SHEETS:

A. ANY DISCREPANCY THAT PREVENTS THE CONTRACTOR FROM MEETING THE DESIGN INTENT OF THE DRAWINGS SHALL BE DOCUMENTED ON THE PROJECT RECORD DOCUMENTS AND BE REPORTED TO THE ARCHITECT/ENGINEER IMMEDIATELY.

B. ALL DEVIATIONS FROM SCHEDULED EQUIPMENT THAT RESULTS IN ADDITIONAL COST DUE TO LACK OF COORDINATION WITH DIMENSIONS, WEIGHTS, AND CONNECTION POINTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

C. CONTRACTOR SHALL VISIT JOBSITE AND VERIFY SIZE AND LOCATION OF ALL EXISTING ITEMS AND CONDITIONS. CONTRACTOR SHALL COORDINATE ALL WORK CLOSELY WITH EXISTING CONDITIONS AND WITH ALL OTHER TRADES.

D. ALL MECHANICAL, ELECTRICAL, AND PLUMBING WORK SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL BUILDING CODES. REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS FOR MECHANICAL AND PLUMBING CONSTRUCTION.

E. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, PAY ALL FEES, AND COMPLY WITH ALL NATIONAL, STATE, AND MUNICIPAL LAWS, CODES, AND ORDINANCES RELATING TO BUILDING AND PUBLIC SAFETY.

F. THE CONTRACTOR SHALL PREPARE A FULL SET OF COORDINATION DRAWINGS, SHOWING THE RELATIONSHIP OF ALL SYSTEMS TO BE INSTALLED. THESE DRAWINGS SHALL INDICATE SIZES, ELEVATIONS, AND EXACT LOCATIONS OF ALL STRUCTURAL, ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS. THESE DRAWINGS SHALL BE COMPLETED PRIOR TO BEGINNING ANY WORK AND SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW. CONTRACTOR SHALL NOTE ANY ITEMS THAT PREVENT HIM FROM MEETING THE DESIGN INTENT OF THE CONSTRUCTION DOCUMENTS ON THESE DRAWINGS.

G. CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR REQUIRED FOR A COMPLETE WORKING AND COORDINATED SYSTEM.

H. COORDINATE THE EXACT LOCATION OF MECHANICAL AND PLUMBING EQUIPMENT AND DEVICES WITH THE LOCATIONS OF LIGHT FIXTURES, PIPING, CONDUIT, AND OTHER CONSTRUCTION, TO ALLOW FOR PROPER ACCESS TO SERVICE EQUIPMENT.

I. COORDINATE THE LOCATION OF DUCTWORK AND PIPING WITH ALL OTHER TRADES AND PROVIDE OFFSETS IN DUCTWORK AND PIPING AS REQUIRED.

J. IT IS THE INTENT OF THESE DOCUMENTS TO ALLOW ALL CEILING CONSTRUCTION AND HEIGHTS TO BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS. COORDINATE THE LOCATION OF DUCTWORK AND PIPING AND PROVIDE OFFSETS IN DUCTWORK AND PIPING AS REQUIRED TO MEET THIS INTENT.

K. CONDUIT, PIPING, AND DUCTWORK SHALL BE INDEPENDENTLY SUPPORTED, AND EACH SUPPORT SHALL BE INDEPENDENT OF PARTITION AND CEILING SYSTEM SUPPORTS. WHERE INDEPENDENT SUPPORT IS NOT POSSIBLE AN ENGINEERED SUPPORT SYSTEM SHALL BE UTILIZED.

L. INSTALL ALL FLOOR MOUNTED EQUIPMENT ON PADS AS SPECIFIED. PAD BY GENERAL CONTRACTOR. COORDINATE REQUIREMENTS WITH GENERAL CONTRACTOR.

M. ALL WORK SHALL BE SCHEDULED AND PERFORMED IN STRICT COORDINATION WITH ARCHITECTURAL PHASING PLANS AND WITH BUILDING SCHEDULES, OCCUPANCIES, AND WORK.

N. PROTECT EQUIPMENT AND WORK FROM DAMAGE DURING HANDLING AND INSTALLATION UNTIL COMPLETION OF CONSTRUCTION.

O. REMOVE ALL EXCESS MATERIAL AND DEBRIS AND CLEAN ALL EQUIPMENT UPON COMPLETION OF WORK. TOUCH UP WITH PAINT WHERE REQUIRED.

P. CONTRACTOR SHALL COORDINATE ALL WORK CLOSELY WITH ALL OTHER TRADES.

Q. CLIENT/ARCHITECT SHALL HAVE FINAL APPROVAL OF ALL GRILLE, DIFFUSER, AND THERMOSTAT LOCATIONS.

R. COORDINATE ALL AIR DEVICE LOCATIONS AND MOUNTING FRAME STYLES WITH LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS.

S. COORDINATE ALL WALL MOUNTED DEVICE LOCATIONS WITH ARCHITECTURAL INTERIOR ELEVATIONS.

T. PROVIDE ADDITIONAL VALVES, TAPS, TEMPORARY DUCTWORK, ETC. AS NECESSARY TO PROVIDE UNINTERRUPTED SERVICE TO AREAS OUTSIDE OF THE PHASE IN WHICH WORK IS BEING PERFORMED.

U. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF WALLS THAT EXTEND TO STRUCTURE. EACH HVAC DUCT OR PIPE PENETRATION THROUGH THESE WALLS SHALL BE INSTALLED AS SPECIFIED OR DETAILED. WHERE FLEXIBLE DUCT WOULD PENETRATE A WALL WHICH EXTENDS TO STRUCTURE, PROVIDE INSULATED RIGID DUCT EXTENDING 12" ON EITHER SIDE OF THE PARTITION.

V. ALL DEVIATIONS FROM SCHEDULED EQUIPMENT THAT RESULTS IN ADDITIONAL COST DUE TO LACK OF COORDINATION WITH DIMENSIONS, WEIGHTS, AND CONNECTION POINTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

W. DUCT SIZES ARE NET FREE AREA.

X. PROVIDE ROUND DUCTS TO ALL AIR DEVICES UNLESS NOTED OTHERWISE. DUCT SIZE SHALL MATCH AIR DEVICE NECK SIZE OR THE TABLE IN AIR DEVICE SCHEDULE, WHICHEVER IS LARGER. FLEXIBLE DUCTS SHALL BE SIZED SIMILARLY. DO NOT USE FLEXIBLE DUCTS ABOVE NON-LAYIN CEILINGS.

Y. PROVIDE FRAMED O.5" BY 0.5" BIRD SCREEN (GALVANIZED STEEL ASSEMBLY) AT ALL DUCTS TERMINATING WITHOUT AN AIR DEVICE, AT INDOOR FACE OF LOUVERS, AND AT UNDUCTED AIR FLOW OPENINGS AT EQUIPMENT.

Z. PROVIDE MANUAL VOLUME DAMPER IN EACH AIR DEVICE RUNOUT DUCT AS FAR FROM AIR DEVICE AS POSSIBLE.

AA. INSTALL TURNING VANES IN ALL 90 DEGREE SQUARE ELLS IN SUPPLY, RETURN, AND EXHAUST DUCTS. (NONE ALLOWED IN COMBUSTION AIR DUCTS).

AB. MULTI-BLADE DAMPERS OF ANY TYPE INSTALLED WITHIN 36" OF AN ELL OR OTHER FITTING SHALL BE INSTALLED WITH THE DAMPER BLADE SHAFTS PARALLEL TO THE AIRSTREAM FLOW DIRECTION UPSTREAM OF THE FITTING.

AC. ALL FIRE AND COMBINATION FIRE/SMOKE DAMPERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION DETAILS AND BE U.L. TESTED AND LISTED.

AD. SLOPE & ARRANGE CONDENSATE PIPING TO ESTABLISH HIGH POINTS FOR AIR ELIMINATION AND LOW POINTS TO PERMIT PROPER DRAINING OF EACH LINE. PROVIDE MANUAL AIR VENTS AT HIGH POINTS AND DRAIN VALVES AT LOW POINTS.

AE. COORDINATE LOCATION OF ALL DUCT AND PIPING FLOOR SLEVE/CORE PENETRATIONS WITH STRUCTURAL DRAWINGS.

AB. INSTALL SPACE THERMOSTAT ADJACENT TO LATCH SIDE OF DOOR IN SPACE INDICATED. INDICATED LOCATIONS ARE APPROXIMATE. AVOID HEAT PRODUCING EQUIPMENT. FINAL SPACE THERMOSTAT/SENSOR LOCATIONS SHALL BE AS DIRECTED BY THE ARCHITECT.

AE. COORDINATE LOCATION OF ALL DISCONNECTS, CONTROL PANELS AND ELECTRICAL CONNECTIONS FOR MECHANICAL AND PLUMBING EQUIPMENT TO MAINTAIN NEC REQUIRED CLEARANCES OF 42" DEEP AND 30" WIDE IN FRONT OF EQUIPMENT.

GENERAL PIPING NOTES:

A. REFER TO THE ARCHITECTURAL PHASING PLAN FOR THE AREAS SHOWN ON THIS SET OF PLANS. WORK SHALL BE SCHEDULED AND PERFORMED IN SEQUENCE WITH THE PHASING PLAN.

B. ARCHITECT SHALL HAVE FINAL APPROVAL OF ALL THERMOSTAT LOCATIONS. COORDINATE ALL WALL MOUNTED DEVICE LOCATIONS WITH ARCHITECTURAL INTERIOR ELEVATIONS.

N. ALL CONNECTION BETWEEN PIPES OF DISSIMILAR MATERIALS SHALL BE MADE WITH DIELECTRIC UNIONS.

O. G.C. TO PROVIDE ACCESS DOORS IF REQUIRED FOR ACCESS TO VAV'S AND ANY VALVES THAT ARE NOT ACCESSIBLE. VERIFY SIZE AND LOCATIONS WITH MECHANICAL CONTRACTOR.

P. PROVIDE DRAIN PAN UNDER PIPES INSIDE ELECTRICAL AND COMMUNICATION ROOMS.

Q. PROVIDE CONDENSATE DRAIN PIPING FROM ALL COOLING COILS TO DRAIN.

R. LOCATE ISOLATION VALVES FOR EQUIPMENT AS CLOSE TO THE MAIN AS POSSIBLE.

GENERAL DEMOLITION NOTES:

A. ALL CAPPED DUCT TAPS AND CONNECTING DUCTS THAT ARE NOT BEING USED ARE TO BE REMOVED BACK TO THE MAIN DUCT AND PATCHED AS PER ITEM B BELOW.

B. PATCH OPENINGS IN EXISTING DUCTWORK THAT IS TO REMAIN INCLUDING OPENINGS. WHERE TAPS OR DUCTWORK ARE TO BE REMOVED, THE FOLLOWING SHALL OCCUR:

- OPENINGS IN THE MAIN DUCTS ARE TO BE COVERED WITH A SHEET METAL PATCH. THE PATCH IS TO BE LARGER THAN THE EXISTING OPENING AND IS TO BE SECURED WITH SHEET METAL SCREWS FOUR INCHES ON CENTERS.
- A LIBERAL QUANTITY OF FIRE RESISTANT ADHESIVE IS TO BE APPLIED TO THE EDGES OF THE METAL PATCH AND THE ASSEMBLY SCREWED IN PLACE.

C. REFER TO THE ARCHITECTURAL PHASING PLAN FOR THE AREAS SHOWN ON THIS PLAN. WORK SHALL BE SCHEDULED AND PERFORMED IN SEQUENCE WITH THE PHASING PLAN.

D. DEMOLITION OF EACH PHASE SHALL OCCUR AS PART OF THE WORK FOR THAT PHASE. REMOVE ONLY THE WORK THAT SERVES THE AREA OF DEMOLITION.

E. PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO PREVENT DISRUPTING ADJACENT AREAS OF THE PHASE IN WHICH WORK IS BEING PERFORMED.

F. PROVIDE ADDITIONAL VALVES, TAPS, TEMPORARY DUCTWORK AND/OR PIPING AS NECESSARY TO PROVIDE UNINTERRUPTED SERVICE TO AREAS OUTSIDE OF THE PHASE IN WHICH WORK IS BEING PERFORMED.

G. ALL WORK SHALL BE PERFORMED IN STRICT COORDINATION WITH HOSPITAL SCHEDULES, OCCUPANCIES AND WORK. CONTRACTOR SHALL COORDINATE WITH HOSPITAL REPRESENTATIVE.

H. ALL NECESSARY SHUTDOWNS OR OUT OF PHASE WORK SHALL BE SCHEDULED WITH THE HOSPITAL REPRESENTATIVE.

MECHANICAL ABBREVIATIONS

AC	ABOVE CEILING	FCU	FAN COIL UNIT
AFF	ABOVE FINISHED FLOOR	FPB	FAN POWERED BOX
AI	ANALOG INPUT	FPI	FINS PER INCH
AO	ANALOG OUTPUT	GC	GENERAL CONTRACTOR
BFC	BELOW FINISHED CEILING	GEF	GENERAL EXHAUST FAN
BF	BELOW FLOOR, BLIND FLANGE	GSF	GENERAL SUPPLY FAN
BG	BELOW GRADE	MVD	MANUAL VOLUME DAMPER
BV	BUTTERFLY VALVE	N	NEW
CD	CONDENSATE LINE	OBD	OPPOSED BLADE DAMPER
CRU	COMPUTER ROOM UNIT	R	RELOCATED
CU	CONDENSING UNIT	RA	RETURN AIR
DI	DIGITAL INPUT	SA	SUPPLY AIR
DO	DIGITAL OUTPUT	UH	UNIT HEATER
DS	DISCONNECT SWITCH	VAV	VARIABLE AIR VOLUME
E	EXISTING	WH	WATER HEATER
ECD	EMERGENCY CONDENSATE LINE	WHP	WATER-SOURCE HEAT PUMP
EDH	ELECTRIC DUCT HEATER	FMB	FILTER MIXING BOX
EUH	ELECTRIC UNIT HEATER	IN HG	INCHES MERCURY (PRESSURE)
EF	EXHAUST FAN	IN WC	INCHES WATER COLUMN (PRESSURE)
SF	SUPPLY FAN	IBT	INVERTED BUCKET TRAP
EA	EXHAUST AIR	TAV	THERMOSTATIC AIR VENT (STEAM SYSTEM)
OA	OUTSIDE AIR		
RLA	RELIEF AIR	MA	MIXED AIR
CHW	CHILLED WATER	RCA	RECIRCULATED AIR (RETURN)
UNO	UNLESS NOTED OTHERWISE	SCD	SECONDARY CONDENSATE LINE
PRV	PRESSURE RELIEF VALVE		
SV	SAFETY VALVE		

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation. **2009 IBC 105.4**

Failure to follow the approved plans may result in an hourly to review the field changes for code compliance.

MECHANICAL SYMBOLS

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION
	DIRECTION OF SLOPE
	DIRECTION OF FLOW
	EXPANSION LOOP
	GATE VALVE
	BUTTERFLY VALVE
	BALL VALVE
	CALIBRATED BALANCING VALVE
	GLOBE VALVE
	TEMPERATURE AND PRESSURE RELIEF VALVE
	AUTOMATIC 2-WAY CONTROL VALVE
	AUTOMATIC 3-WAY CONTROL VALVE
	PLUG VALVE/BALANCING COCK
	SOLENOID VALVE
	CHECK VALVE
	VALVE IN VERTICAL
	UNION OR FLANGE
	PETE'S PLUG
	GAUGE COCK
	THERMOMETER
	THERMOMETER WELL
	CALIBRATED BALANCING VALVE
	STRAINER WITH BLOW-OFF VALVE
	F & T STEAM TRAP
	STEAM BUCKET TRAP
	CONNECT TO EXISTING
EP	ELECTRIC PNEUMATIC SWITCH
	ECCENTRIC REDUCER (TOP SIDE)
	ECCENTRIC REDUCER (BOTTOM SIDE)
	CONCENTRIC REDUCER
V	VENT (FROM STEAM SYSTEM)
BD	BLOWDOWN (STEAM SYSTEM)
//	CONTROL SIGNAL
D	DRAIN LINE (FROM EQUIPMENT)
	DUCT FLEXIBLE CONNECTION
30#	STEAM LINE (30 PSIG SHOWN)
OF	OVERFLOW LINE (FROM EQUIPMENT)
S	DIESEL FUME EXHAUST SYSTEM SWITCH
T ID	TEMPERATURE INDICATING DEVICE
H ID	HUMIDITY INDICATING DEVICE

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION
A / E	NEW EQUIPMENT DESIGNATION (TOP - EQUIP. ABBREV., BOTTOM - MARK)
A / #	NEW DIFFUSER DESIGNATION (TOP - SCHEDULE DESIG., BOTTOM - CFM)
	NEW EQUIPMENT
	EXISTING EQUIPMENT
	EXISTING EQUIPMENT TO BE REMOVED OR RELOCATED
	NEW PIPING
	EXISTING PIPING
	EXISTING PIPING TO BE REMOVED OR RELOCATED
	NEW DUCT
	EXISTING DUCT
	EXISTING DUCT TO BE REMOVED OR RELOCATED
	NEW DUCT PROVIDED AS NOTED
	NEW SUPPLY DIFFUSER
	EXISTING SUPPLY DIFFUSER
	EXISTING SUPPLY DIFFUSER TO BE REMOVED OR RELOCATED
	NEW R/A OR EXHAUST GRILLE
	EXISTING R/A OR EXHAUST GRILLE
	EXISTING R/A OR EXHAUST GRILLE TO BE REMOVED OR RELOCATED
	FLEXIBLE DUCT
T	THERMOSTAT
T	EXISTING THERMOSTAT TO BE REMOVED OR RELOCATED
	45° PRESSURE TAP W/ VOLUME DAMPER
	CONICAL TAP WITH VOLUME DAMPER
	CONICAL TAP W/O VOLUME DAMPER
	MANUAL VOLUME DAMPER
	SLEEVE/RETAINING ANGLE ASSEMBLY PER 2004 FBC
	FIRE DAMPER
	SMOKE DAMPER
	FIRE/SMOKE DAMPER
M	MOTORIZED DAMPER
B	BAROMETRIC DAMPER
CHS	CHILLED WATER SUPPLY PIPE
CHR	CHILLED WATER RETURN PIPE
CS	CONDENSER WATER SUPPLY PIPE
CR	CONDENSER WATER RETURN PIPE
HS	HEATING WATER SUPPLY
HR	HEATING WATER RETURN
HPS	HIGH PRESSURE STEAM
HPR	HIGH PRESSURE CONDENSATE RETURN
LPS	LOW PRESSURE STEAM
LPR	LOW PRESSURE CONDENSATE RETURN
PCR	PUMPED CONDENSATE RETURN
PCHS	PRIMARY CHILLED WATER SUPPLY
PCHR	PRIMARY CHILLED WATER RETURN
RHP	REFRIGERATED HIGH PRESSURE PIPE
RLP	REFRIGERATED LOW PRESSURE PIPE
SCHS	SECONDARY CHILLED WATER SUPPLY
SCHR	SECONDARY CHILLED WATER RETURN
MW	MAKE-UP WATER
CD	CONDENSATE DRAIN

PROJECT DESIGN CRITERIA

LOCATION:	
CITY/STATE	AURORA, COLORADO
APPLICABLE CODES:	
BUILDING	2009 IBC
MECHANICAL	2009 IMC
PLUMBING	2009 IPC
ENERGY	2009 IECC
ELECTRICAL	2011 NEC
LATITUDE:	
DEG. N. LAT.	39.75
ELEVATION:	
FT. ABOVE SEA LEVEL	5331

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wqriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
HealthONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN dpLOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED WILLIAM SMITH 47964 4/15/15 PROFESSIONAL ENGINEER

PROJECT NO.: 14-04

DRAWN BY: LS/SM
CHECKED BY: JG/WS
SCALE:
DATE: 04.15.15
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
MEHCANICAL LEGENDS, GENERAL NOTES, AND ABBREVIATIONS

SHEET NO.:
M-0.0
OF

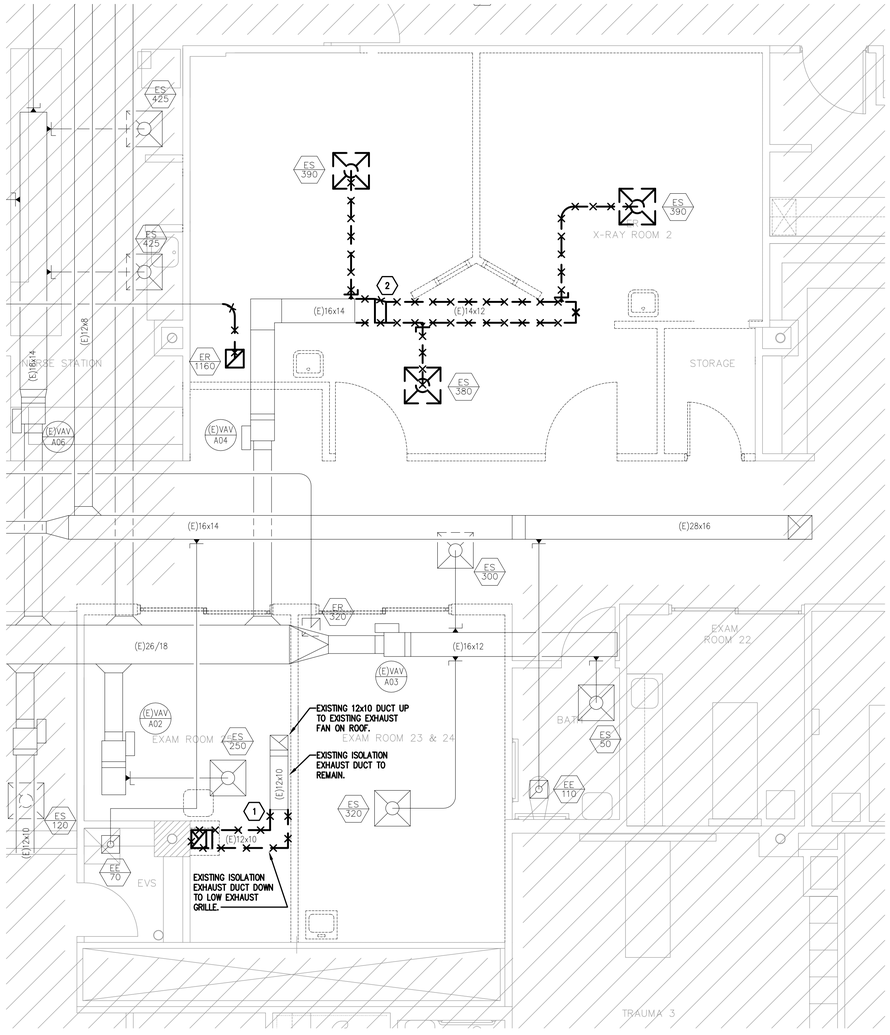
GENERAL NOTES

A. REFER TO SHEET M-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.

LEGEND NOTES

1. DEMOLISH EXISTING ISOLATION EXHAUST DUCT AS INDICATED. EXISTING EXHAUST FAN ON ROOF SHALL REMAIN FOR FUTURE USE. CAP AND SEAL EXISTING EXHAUST DUCT TO REMAIN FOR FUTURE CONNECTION.
2. DEMOLISH EXISTING DUCT AND DIFFUSERS SERVING RADIOLOGY ROOM AS INDICATED. SEE NEW WORK PLAN FOR NEW DUCT LAYOUT.

This sheet of drawings has not been reviewed for code compliance.



NORTH

01 HVAC DEMOLITION PLAN

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

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
Health ONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
WILLIAM SMITH
47964
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.:	14-04
DRAWN BY:	LS/SM
CHECKED BY:	JG/WS
SCALE:	
DATE:	04.15.15
ISSUED FOR:	CONSTRUCTION
REVISIONS:	

SHEET TITLE:

HVAC DEMOLITION PLAN

SHEET NO.:

M-1.0

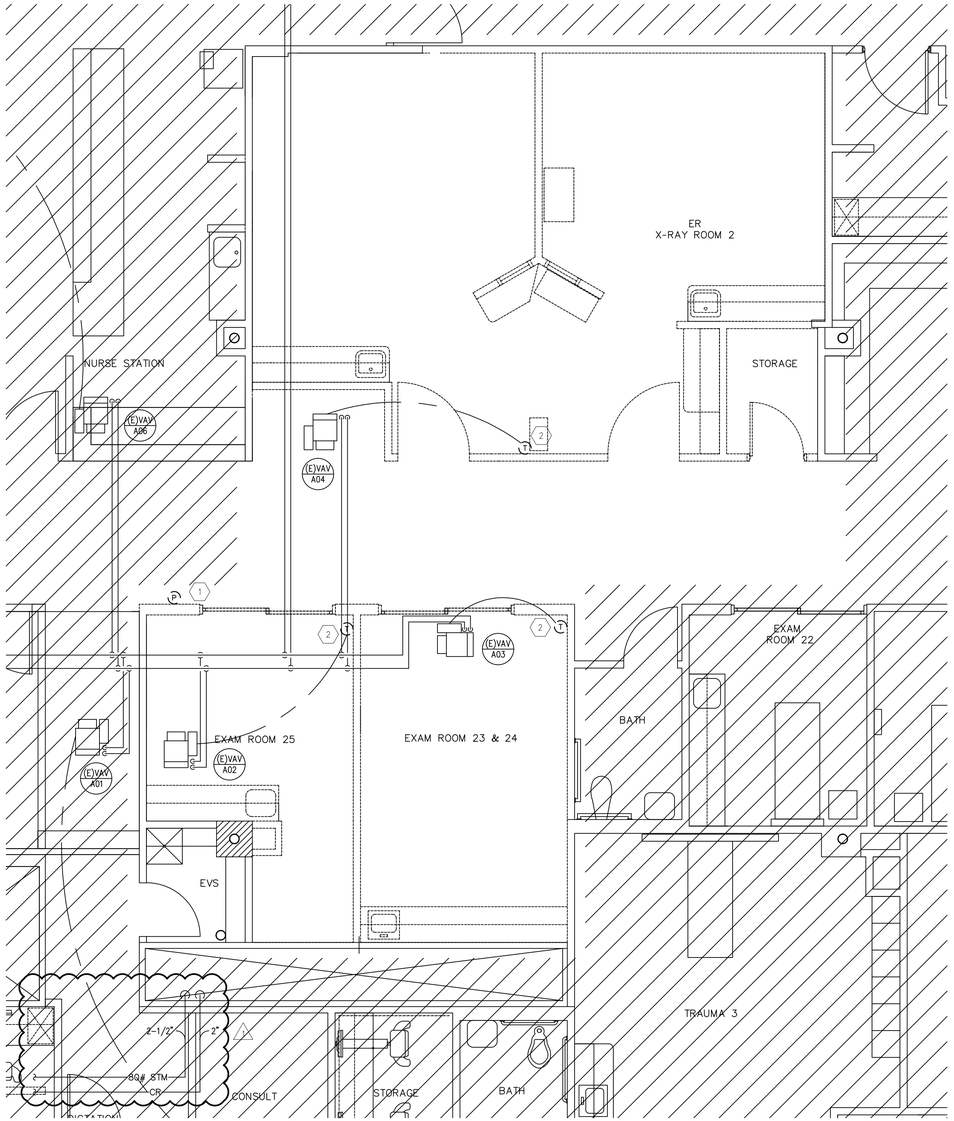
OF

GENERAL NOTES

A. REFER TO SHEET M-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.

LEGEND NOTES

1. EXISTING ROOM PRESSURE MONITOR AND PRESSURE SENSOR TO BE DEMOLISHED.
2. EXISTING THERMOSTAT TO BE RELOCATED. RECALIBRATE THERMOSTATS AFTER INSTALLATION IN NEW LOCATION. SEE NEW WORK PLANS.



NORTH

01 HVAC PIPING DEMOLITION PLAN

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

This sheet of drawings has not been reviewed for code compliance.

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
Health ONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN DPLOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
WILLIAM SMITH
47964
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.:	14-04
DRAWN BY:	LS/SM
CHECKED BY:	JG/WS
SCALE:	
DATE:	05.19.15
ISSUED FOR:	CONSTRUCTION

REVISIONS:

1	.	ADD 03 - 05.29.15

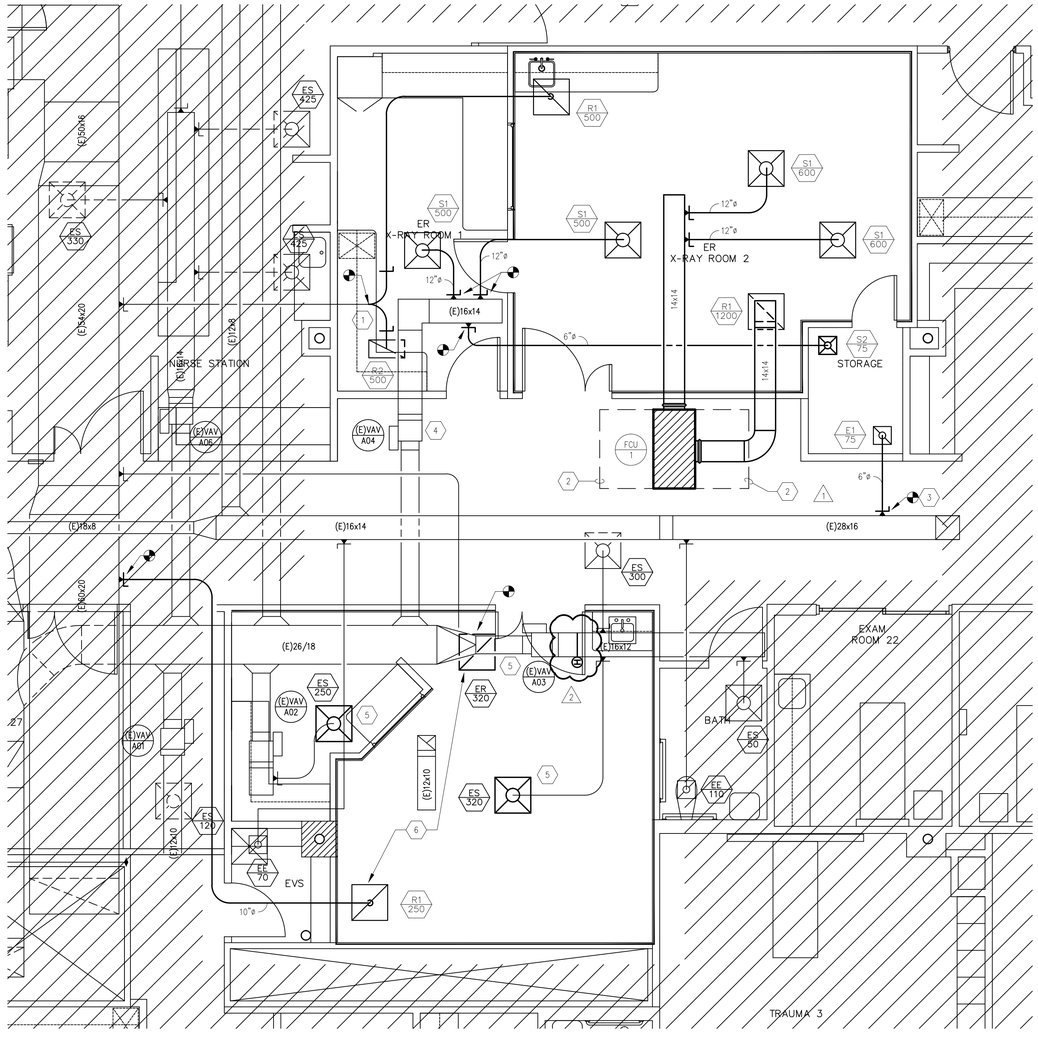
SHEET TITLE:

HVAC PIPING DEMOLITION PLAN

SHEET NO.:

M-1.1

OF



NORTH

01 HVAC PLAN
SCALE: 1/4" = 1'-0"

GENERAL NOTES

A. REFER TO SHEET M-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.

LEGEND NOTES

1. MODIFY EXISTING RETURN RUN-OUT TO ALLOW (2) 12"ø DUCT TAPS FOR (2) RETURN AIR GRILLE CONNECTIONS. REUSE EXISTING RETURN AIR GRILLE IN NEW CONTROL ROOM IF POSSIBLE. PROVIDE NEW R2 TYPE GRILLE IF REQUIRED.
2. COORDINATE FCU LOCATION WITH EXISTING CONDITIONS. PROVIDE CLEAR ACCESS TO CORRIDOR SIDE OF FCU FOR FILTER REMOVAL AND COIL ACCESS.
3. TAP NEW EXHAUST AIR GRILLE INTO EXISTING EXHAUST DUCT IN CORRIDOR.
4. ADJUST CAV BOX MAX AIRFLOW TO 1075 CFM.
5. COORDINATE EXISTING DIFFUSER LOCATION WITH NEW RCP GRID LOCATION.
6. OPEN BALANCING DAMPER SERVING EXISTING RETURN AIR GRILLE TO DETERMINE IF SYSTEM WILL FLOW 570 CFM THROUGH EXISTING GRILLE. IF BALANCED CFM IS POSSIBLE, ADDITIONAL RETURN GRILLE IS NOT REQUIRED. PROVIDE NEW RETURN AIR GRILLE WITH 10" RUN-OUT DUCT IF NECESSARY.

Provide proof of a flame spread <26 and smoke development <51 for any materials used within a plenum.
2009 IMC 602.2.1

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wgriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
Health ONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Professional Consulting Engineers
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

dp DESIGN PLOT
dpteam@thedesignplot.com
(303) 565-7282

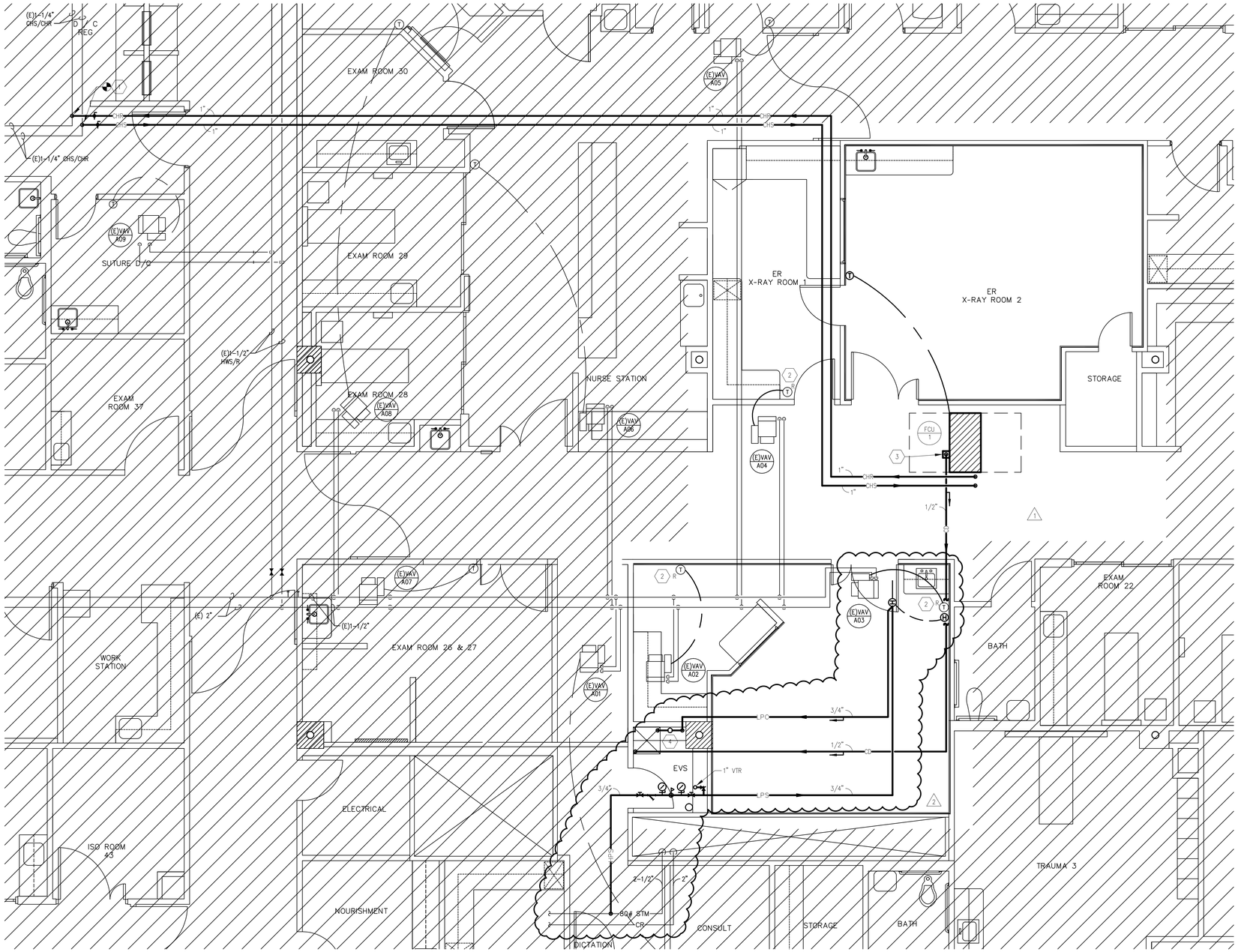
All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
WILLIAM SMITH
47964
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.: 14-04
DRAWN BY: LS/SM
CHECKED BY: JG/WS
SCALE:
DATE: 05.19.15
ISSUED FOR: CONSTRUCTION
REVISIONS:
1 . ADD 02 - 05.26.15
2 . ADD 03 - 05.29.15

SHEET TITLE:
HVAC PLAN

SHEET NO.:
M-2.0
OF



GENERAL NOTES

A. REFER TO SHEET M-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.

LEGEND NOTES

1. CONNECT NEW 1" CHILLED WATER SUPPLY AND RETURN FOR NEW FCU-1 INTO EXISTING 1-1/4" CHILLED WATER ABOVE ED/TRIAGE AREA. COORDINATE EXACT TIE-IN LOCATION AND PIPE ROUTING WITH EXISTING FIELD CONDITIONS.
2. NEW LOCATION FOR EXISTING THERMOSTAT. RECALIBRATE THERMOSTAT AFTER RELOCATION.
3. PROVIDE CONDENSATE PUMP AND ROUTE 1/2" CONDENSATE PIPE TO JANITOR'S SINK IN EVS ROOM AS SHOWN. ROUTE CONDENSATE DRAIN DOWN WALL IN EVS ROOM AND TERMINATE IN SINK.
4. PROVIDE CONDENSATE COOLER MOUNTED ON WALL IN EVS ROOM. SEE PLUMBING PLANS FOR WATER CONNECTION. ROUTE 1/2" COOLED CONDENSATE PIPE TO MOP SINK.

Provide proof of a flame spread <26 and smoke development <51 for any materials used within a plenum.
2009 IMC 602.2.1

01 HVAC PIPING PLAN
SCALE: 1/4" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wgriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
HealthONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN dp LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

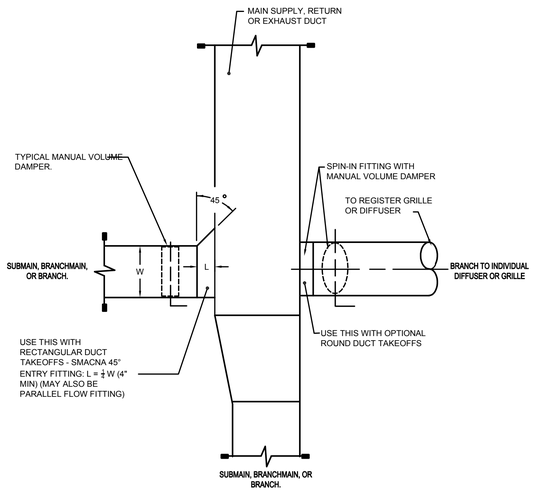
COLORADO LICENSED
JAMES L. SAMPLE
47964
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.: 14-04

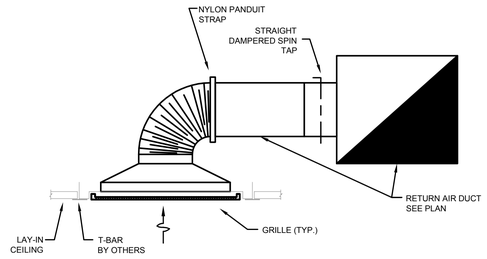
DRAWN BY: LS/SM
CHECKED BY: JG/WS
SCALE:
DATE: 05.19.15
ISSUED FOR: CONSTRUCTION
REVISIONS:
1 . ADD 02 - 05.26.15
2 . ADD 03 - 05.29.15

SHEET TITLE:
HVAC PIPING PLAN

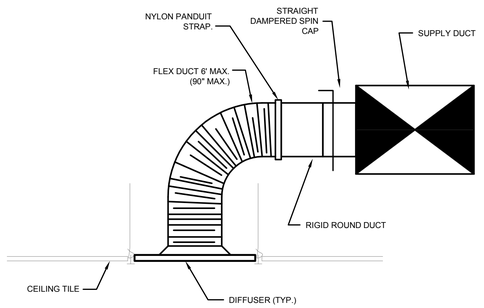
SHEET NO.:
M-2.1
OF



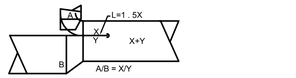
08 LOW PRESSURE DUCT VOLUME DAMPER REQUIREMENTS
NO SCALE

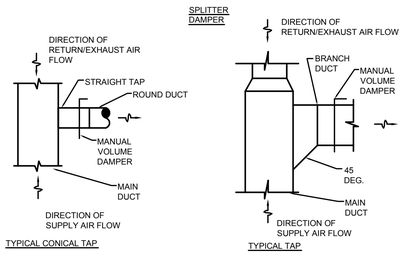


06 RETURN AIR GRILLE DUCT CONNECTION
NO SCALE

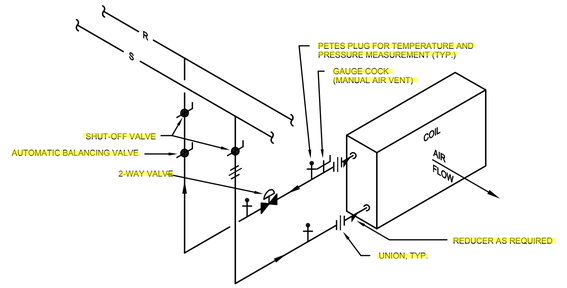


03 DIFFUSER CONNECTION DETAIL
NO SCALE





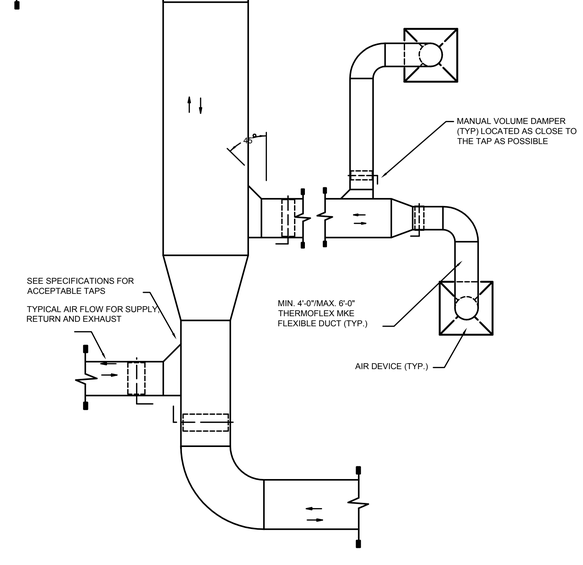
05 LOW PRESSURE DUCT DETAILS
NO SCALE



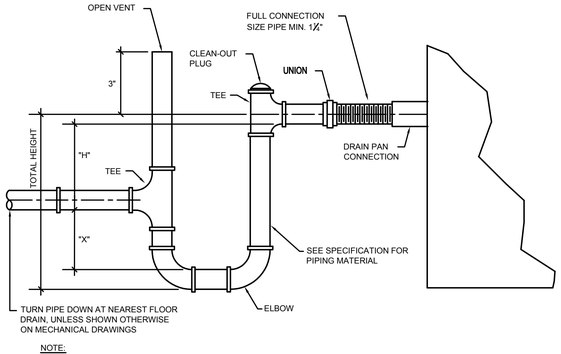
NOTE: THIS DETAIL APPLIES TO FAN COIL UNITS, UNIT HEATERS, AND TERMINAL BOXES.

PROVIDE STRAINER ON INLET SIDE OF EACH CONTROL VALVE PER SPECIFICATIONS.

02 CHILLED WATER OR HEATING WATER - PIPING OF SINGLE WATER COIL WITH AUTOMATIC CONTROL AND 2-WAY VALVE
NO SCALE



07 TYPICAL LOW PRESSURE SUPPLY RETURN AND EXHAUST DUCT DETAIL
NO SCALE



NOTE:

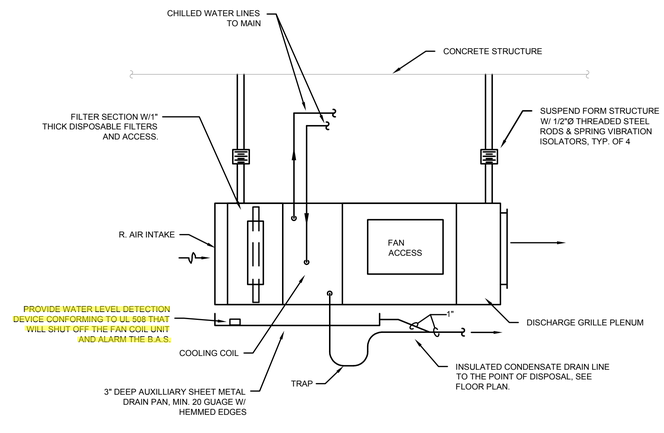
1. ELEVATED A/C UNIT SUFFICIENT DISTANCE ABOVE FLOOR OR ROOF TO ALLOW FOR INSTALLATION OF TRAP WITH ADEQUATE DIMENSIONS TO WITHSTAND SYSTEM OPERATING PRESSURE. COORDINATE WITH DETAIL FOR A/C UNIT MOUNTING.

TOTAL HEIGHT OF TRAP = X+H+(1½ x PIPE DIAMETER)

FOR DRAW THRU UNITS
X = MIN. 1H (PREFERRED 1½ H)
H = NEGATIVE STATIC PRESSURE + 1"

FOR BLOW THRU UNITS
X = FAN STATIC PRESSURE +1"
H = MIN. 1"

04 COOLING COIL CONDENSATE DRAIN
NO SCALE



01 FAN COIL UNIT
NO SCALE

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wgriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
Health ONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:

ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

dp DESIGN PLOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
WILLIAM SMITH
47964
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.: 14-04
DRAWN BY: LS/SM
CHECKED BY: JG/WS
SCALE:
DATE: 04.15.15
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
MEHCANICAL DETAILS

SHEET NO.:
M-3.0
OF

AIR DEVICE SCHEDULE

DESIG.	FRAME SIZE	OBD	FINISH	THROW	NECK SIZE	MANUFACTURER/MODEL NO.	REMARKS/NOTES
S1	24x24	NO	WHITE	4-WAY (ADJUSTABLE)	NOTE 1	TITUS TMSA-AA	SQUARE CONE DIFFUSER
S2	12x12	NO	WHITE	4-WAY (ADJUSTABLE)	NOTE 1	TITUS TMSA	SQUARE CONE DIFFUSER (LAY IN)
R1	24x24	NO	WHITE	N/A	NOTE 3	TITUS 355FL	LOUVERED RETURN (LAY IN)
R2	12x24	NO	WHITE	N/A	NOTE 4	TITUS 355FL	LOUVERED RETURN (LAY IN)
E1	12x12	NO	WHITE	N/A	NOTE 4	TITUS 355RL	LOUVERED EXHAUST (LAY IN)

NOTES:

1.

NECK*	AIRFLOW
6"Ø	0-100 CFM
8"Ø	101-200 CFM
10"Ø	201-350 CFM
12"Ø	351-560 CFM
14"Ø	561-850 CFM

* AND/OR DUCT RUNOUT

2.

NECK*	AIRFLOW
6x6	0-100 CFM
8x8	101-230 CFM
10x10	231-360 CFM
12x12	361-450 CFM
16x16	451-800 CFM
22x22	801-1200 CFM

* AND/OR DUCT RUNOUT

3. ON ALL R1 DUCTED RETURN AIR GRILLES: PROVIDE 22"x22" NECK GRILLE AND INSTALL 22"x22"x6" TALL PLENUM BOX ON BACK OF GRILLE. SEE PLANS FOR DUCT RUN OUT SIZE TO PLENUM BOX. SEE NOTE 2 IF NO SIZE IS INDICATED.
4. SEE NOTE 1 FOR RUNOUT SIZE IF NOT INDICATED ON PLANS (NOTE 2 MAY BE USED AS AN ALTERNATE). PROVIDE SQUARE TO ROUND ADAPTER AS REQUIRED.

FAN COIL UNIT SCHEDULE

DESIGNATION		FCU-1 (NOTE 1)
TYPE		CHILLED WATER PRECISION COOLING
ROOM DESIGN CONDITIONS	DB/WB (°F)	75/62
	RELATIVE HUMIDITY (%)	50
ELECTRICAL DATA	VOLTS/PHASE	277/1
	FLA	12
	MOCP	15
FAN MOTOR	CFM	1225
	ESP ("WG)	0.5
	MIN. HP	3/4
COOLING DATA	TOTAL CAPACITY (BTUH)	26,900
	SENSIBLE CAPACITY (BTUH)	24,000
	EWT (°F)	42
	LWT (°F)	56
	GPM	5.0
	MAX. P.D. (FT.)	10.5
REHEAT KW		2
HUMIDIFIER DATA	KW	1.7
	LBS/HR	5
FILTER DATA	TYPE - THICKNESS	2" PLEATED
	EFFICIENCY (MERV)	8
	P.D. (CLEAN / DIRTY)	0.2 / 0.6
BASED ON (MANUF./MODEL NO.)		DATA AIRE / DAMC-2.5
REMARKS/NOTES		ALL

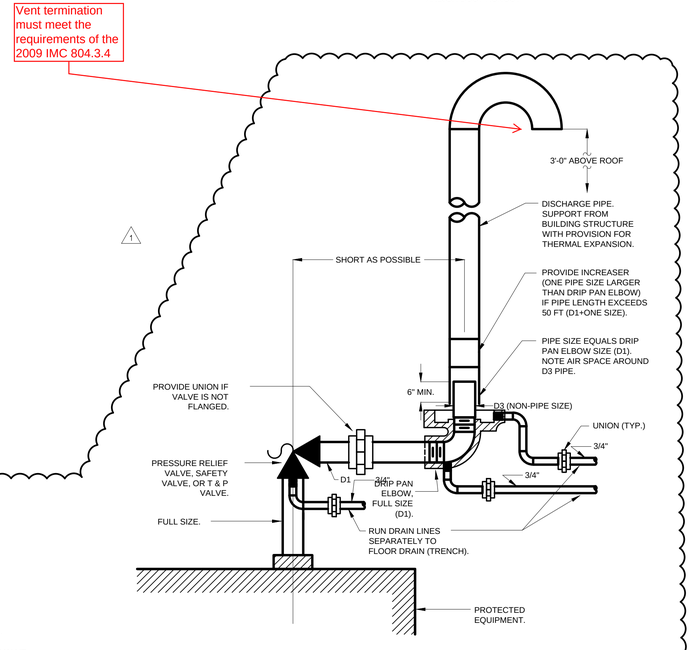
NOTES:

1. COORDINATE FINAL EQUIPMENT DESIGNATION WITH FACILITY BUILDING AUTOMATION SYSTEM.
2. DISCONNECT PROVIDED BY EQUIPMENT MANUFACTURER.
3. PROVIDE INTEGRAL CONDENSATE PUMP EQUAL TO LITTLE GIANT VCC-20ULS. PUMP SHALL BE POWERED BY FCU CONTROL PANLE. ROUTE 1/2" CONDENSATE DRAIN TO NEAREST JANITOR CLOSET. SEE PIPING PLANS FOR ADDITIONAL INFORMATION.
4. COORDINATE UNIT AND FILTER ACCESS WITH PLANS.
5. PROVIDE REMOTE MOUNT THERMOSTAT WITH HUMIDISTAT. UNIT SHALL MAINTAIN TEMPERATURE AND HUMIDITY (MIN 20% RH) WITH FACTORY CONTROLLER. UNIT SHALL ALARM AT BUILDING AUTOMATION SYSTEM.

CONTROL OF FAN COIL UNIT SHALL BE BY MANUFACTURER'S CONTROL PANEL WITH BUILT IN, PRE-PROGRAMMED SEQUENCES FOR TEMPERATURE AND HUMIDITY CONTROL.

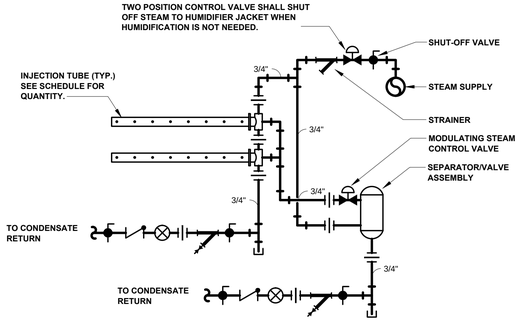
01 FAN/COIL CONTROL SEQUENCE

SCALE: NTS



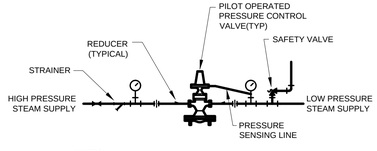
02 DRIP PAN ELBOW

NO SCALE



04 STEAM HUMIDIFIER DETAIL

NO SCALE



NOTES:
1. 100 PSI STEAM PIPE SIZED AT 2 PSI DROP PER 100 FT.
2. 60 PSI STEAM PIPE SIZED AT 1 PSI DROP PER 100 FT.
3. 15 PSI STEAM PIPE SIZED AT 0.5 PSI DROP PER 100 FT.
4. PRESSURE CONTROL VALVES SHALL BE SIZED FOR A 5 PSI DROP ACROSS VALVE.

03 TYPICAL STEAM PRESSURE REDUCING VALVE STATION

NO SCALE

STEAM HUMIDIFIER SCHEDULE

DESIGNATION	MIN. LBS/HR	PSIG.	HUMID. SIZE	SYSTEM SERVED	HUMIDISTAT LOCATION	MANUFACTURER/MODEL	REMARKS/NOTES
H-1	9.3	5	(1) 3/4" VALVE	(E)VAV A03	X-RAY ROOM	NEPTRONIC / SKD	ALL

NOTES:
1. DISPERSION GRID TO BE MOUNTED IN SUPPLY AIR DUCT, COORDINATE WITH DUCT DIMENSIONS.
2. DISPERSION DISTANCE SHALL BE LESS THAN 12".
3. PROVIDE 24V ELECTRONIC ACTUATOR WITH 0-10 VDC SIGNAL.
4. PROVIDE STAINLESS STEEL HUMIDIFIER CASING.
5. HUMIDISTAT AND DUCT MOUNTED HIGH LIMIT CONTROLLER BY HUMIDIFIER MANUFACTURER.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wgriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
Health ONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN DPLOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

WILLIAM SMITH 47964 4/15/15 COLORADO LICENSED PROFESSIONAL ENGINEER

PROJECT NO.: 14-04

DRAWN BY: LS/SM
CHECKED BY: JG/WS
SCALE:
DATE: 05.19.15
ISSUED FOR: CONSTRUCTION
REVISIONS:
1 . ADD 02 - 05.26.15
2 . ADD 03 - 05.29.15

SHEET TITLE:

MEHCANICAL SCHEDULES AND CONROLS

SHEET NO.:

M-4.0

OF

MECHANICAL AND PLUMBING SPECIFICATIONS

I GENERAL CONDITIONS:

A. THE SCOPE OF THE WORK SHALL INCLUDE THE FURNISHING AND INSTALLATION OF THE NECESSARY MATERIAL AND LABOR TO ACCOMPLISH THE WORK INDICATED BY THE DRAWINGS AND HEREIN SPECIFIED. ALL WORK BY THIS CONTRACTOR SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING CODES.

B. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE EXISTING CONDITIONS AT THE JOB SITE BEFORE SUBMITTING PROPOSALS. SUBMISSION OF PROPOSALS SHALL BE TAKEN AS EVIDENCE THAT SUCH INSPECTION HAS TAKEN PLACE. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE COMPLETE SET OF CONSTRUCTION DOCUMENTS, AND THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.

C. MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE NEW AND SHALL BEAR THE UL. LABEL WHERE APPLICABLE, UNLESS NOTED OTHERWISE. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR AFTER COMPLETION AND ACCEPTANCE BY THE OWNER.

D. CONTRACTOR SHALL INSTALL MECHANICAL SYSTEMS WITHOUT INTERFERENCE AND IN STRICT COORDINATION WITH OTHER TRADES.

E. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS. IN CASE OF DIFFERENCE BETWEEN APPLICABLE CODES AND STANDARDS AND THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ARCHITECT/ENGINEER AND THE OWNER IN WRITING OF SUCH DIFFERENCE. SHOULD THE CONTRACTOR PERFORM ANY WORK THAT DOES NOT COMPLY WITH THE REQUIREMENTS OF APPLICABLE CODES AND STANDARDS, HE SHALL BEAR ALL COSTS ARISING IN CORRECTING SUCH DEFECTS. APPLICABLE CODES AND STANDARDS SHALL INCLUDE ALL ORDINANCES, UTILITY COMPANY REGULATIONS, AND APPLICABLE REQUIREMENTS OF NATIONALLY ACCEPTED CODES AND STANDARDS. SHOULD THE CONTRACTOR SUPPLY EQUIPMENT DIFFERING FROM THE SPECIFIED ITEMS IN THE CONTRACT DOCUMENTS WITHOUT NOTIFICATION TO THE ENGINEER, HE SHALL BEAR ALL COSTS TO UPGRADE DEFICIENCIES ARISING FROM SUCH.

F. WHERE ONLY ONE MANUFACTURER'S NAME IS LISTED IN THE EQUIPMENT SPECIFICATION, OTHER MANUFACTURERS OF SIMILAR CHARACTERISTICS AND OF EQUAL OR BETTER PERFORMANCE CAPACITIES MAY BE CONSIDERED FOR "OR EQUAL" APPROVAL BY THE ENGINEER. WHERE MORE THAN ONE MANUFACTURER IS LISTED IN THE NOTES AND EQUIPMENT SPECIFICATIONS, ONLY THOSE NAMED MANUFACTURERS WILL BE CONSIDERED FOR APPROVAL.

G. SHOULD A SUBSTITUTION BE ACCEPTED, AND SHOULD THE SUBSTITUTE MATERIAL PROVE DEFECTIVE, OR OTHERWISE UNSATISFACTORY FOR THE SERVICE INTENDED WITHIN THE GUARANTEE PERIOD, THIS MATERIAL OR EQUIPMENT SHALL BE REPLACED WITH THE MATERIAL OR EQUIPMENT SPECIFIED AT NO COST TO THE OWNER.

H. PROVIDE ACCESS, INCLUDING NECESSARY ACCESS DOORS, FOR NEW AND EXISTING EQUIPMENT REQUIRING OPERATION AND/OR MAINTENANCE. RELOCATE EXISTING AND LOCATE ALL NEW EQUIPMENT SUCH THAT OPERATION OR MAINTENANCE IS NOT RESTRICTED.

I. DO NOT RUN PIPING OR DUCTWORK, OR LOCATE EQUIPMENT, WITH RESPECT TO SWITCHBOARDS, PANELBOARDS, POWER PANELS, MOTOR CONTROL CENTERS OR DRY TYPE TRANSFORMERS, WITHIN 42 INCHES IN FRONT OF EQUIPMENT, OVER EQUIPMENT, OR WITHIN 36 INCHES HORIZONTALLY OF SAME SPACE.

J. PROVIDE SNAP-ON OR ADHESIVES LABELS INDICATING CHILLED OR HOT WATER SUPPLY AND RETURN, CONDENSATE DRAINAGE, DOMESTIC HOT AND COLD WATER, MEDICAL GASES, ETC.

II MECHANICAL DEMOLITION

A. UNLESS NOTED OTHERWISE, THE MECHANICAL DEMOLITION SHALL BE CARRIED OUT TO THE EXTENT THAT THE FLOORS ARE RETURNED TO THE ORIGINAL BASE BUILDING CONDITIONS. CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS IN ORDER TO ACCURATELY DETERMINE THE EXTENT OF THE WORK UNDER THIS SECTION.

B. UNLESS NOTED OTHERWISE, REMOVE EXISTING INTERIOR DIFFUSERS, GRILLES, AND DUCTWORK AS INDICATED PLANS. EXISTING DIFFUSERS AND GRILLES MAY BE REUSED IF THEY MEET THE SCHEDULED SPECIFICATIONS. EXISTING BASE BUILDING SLOT DIFFUSERS ARE TO REMAIN EXCEPT WHERE INDICATED ON PLANS.

C. EXISTING THERMOSTATS AND/OR TEMPERATURE SENSORS ARE TO BE RELOCATED AND REUSED IF IN GOOD WORKING CONDITION.

D. WASTE, DOMESTIC WATER, AND VENT PIPING SHALL BE REMOVED BACK TO RISER STACK CONNECTIONS AND CAPPED, UNLESS NOTED OTHERWISE.

E. EXISTING DUCTWORK SHOWN ON PLANS MAY NOT EXACTLY MATCH THE ACTUAL FIELD CONDITIONS. IT IS NOT NECESSARY TO REWORK THE DUCTWORK IN ORDER TO MATCH WHAT IS DEPICTED ON THE PLANS. CONTRACTOR SHALL VERIFY EXISTING DUCTWORK ROUTING AND LOCATIONS AND MAKE ADJUSTMENTS AS REQUIRED AVOIDING CONFLICTS WITH NEW DUCTWORK, EQUIPMENT, LIGHT FIXTURES, ETC.

III PRODUCTS, EQUIPMENT AND EXECUTION:

A. SANITARY DRAIN LINES (SOIL, WASTE AND VENT) SHALL BE AMERICAN MANUFACTURED SERVICE WEIGHT CAST IRON OR DWV COPPER PIPE. JOINTS SHALL BE FABRICATED BY THE USE OF COMPRESSION JOINTS SIMILAR TO TYLER PIPE AND FOUNDRY'S "TY-SEAL" FOR CAST IRON PIPE OR 95/5 SOLDER FOR DWV COPPER PIPE. NO-HUB CAST IRON PIPE ASSEMBLED WITH STAINLESS STEEL/NEOPRENE HUBLESS COUPLINGS SHALL BE LIMITED TO ABOVE GROUND INSTALLATIONS.

B. DOMESTIC WATER PIPING INSTALLED ABOVE GROUND SHALL BE AMERICAN MANUFACTURED TYPE "L" HARD DRAWN COPPER ASSEMBLED WITH 95/5 SOLDER AND WROUGHT COPPER JOINT FITTINGS.

C. RELIEF AND DRAIN PIPING SHALL BE AMERICAN MANUFACTURED TYPE "M" COPPER WITH 95/5 SOLDER JOINT FITTINGS OR SCHEDULE 40 BLACK STEEL PIPES WITH SCREWED FITTINGS.

D. CHILLED AND HOT WATER PIPING SHALL BE AMERICAN MANUFACTURED SCHEDULE 40 BLACK STEEL OR TYPE "L" COPPER PIPE IN ACCORDANCE WITH THE FOLLOWING:

1. 2-1/2" AND SMALLER: STANDARD WEIGHT, BLACK STEEL (AMERICAN MANUFACTURED) PIPE WITH BLACK MALLEABLE IRON SCREWED FITTINGS OR TYPE "L" COPPER WITH WROUGHT COPPER FITTINGS ASSEMBLED WITH 95/5 SOLDER.

2. 3" AND LARGER: STANDARD WEIGHT, BLACK STEEL (AMERICAN MANUFACTURED) PIPE ASSEMBLED WITH FLANGED COUPLINGS/FITTINGS OR FACTORY FABRICATED WELDED FITTINGS.

E. MEDICAL GAS PIPING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH CURRENT NFPA-99 AND HOSPITAL LICENSING CODE REQUIREMENTS, GCA P-2.1 RECOMMENDATIONS FOR MEDICAL-SURGICAL VACUUM SYSTEMS IN HEALTH CARE FACILITIES.

1. PIPING SHALL BE AMERICAN MANUFACTURED SEAMLESS TYPE 'K' HARD-DRAWN COPPER TUBING CLEANED AND SEALED FOR MEDICAL GAS USE. FITTINGS SHALL BE WROUGHT, BRASS OR BRONZE, MADE ONLY FOR BRAZED CONNECTIONS. ALL JOINTS IN THE PIPING, EXCEPT AT VALVES AND EQUIPMENT REQUIRING SCREW CONNECTIONS, SHALL BE ASSEMBLED WITH A SILVER BRAZING ALLOY. SCREWED JOINTS SHALL BE MADE-UP WITH GLYCERIN.

2. MEDICAL GAS WALL OUTLETS SHALL MATCH EXISTING MANUFACTURER, MODEL NUMBER AND FINISH OR MAY BE BEACON MEDICAL PRODUCTS TO MATCH EXISTING.

3. PROVIDE NECESSARY PIPING, FITTINGS, VALVES, ALARMS, SENSORS, WIRING, OUTLETS, ETC. AND LABOR FOR COMPLETE OPERATING SYSTEMS.

4. COLOR-CODED ADHESIVE PIPE MARKERS SHALL BE INSTALLED AT NO MORE THAN 20 FEET APART, OR ONE IN EACH ROOM, OR EACH FLOOR OF THE BUILDING. LABELS SHALL INCLUDE GAS CONTENTS, OPERATING PRESSURE AND THE DIRECTION OF FLOW ON ALL MEDICAL GASES, COMPRESSED AIR AND VACUUM PIPING.

5. THE MEDICAL AIR VACUUM PIPING SHALL ORIGINATE FROM THE EXISTING AIR AND VACUUM PIPING SYSTEMS LOCATED ABOVE THE CORRIDOR CEILING.

6. THE OXYGEN PIPING SHALL ORIGINATE FROM THE EXISTING OXYGEN DISTRIBUTION LINE ABOVE THE CORRIDOR CEILING.

7. THE MANUFACTURER OF MEDICAL GAS EQUIPMENT SHALL TEST ALL MEDICAL GAS PIPING SYSTEMS AFTER INSTALLATION TO INSURE THAT NO CROSSED LINES EXIST AND THAT THE PROPER SERVICE IS BROUGHT TO EACH OUTLET. THE TEST SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 99 4-5 GAS SYSTEM PERFORMANCE CRITERIA AND TESTING. FURNISH THE OWNER, THROUGH THE ARCHITECT, A WRITTEN CERTIFICATION, SIGNED BY AN OFFICER OF THE COMPANY, THAT THE SYSTEM HAS BEEN CHECKED AND IS CONSTRUCTED AND TESTED IN ACCORDANCE WITH NFPA 99 AND IS SAFE FOR PATIENT USE. MANUFACTURER MUST SUBMIT A LETTER SIGNED BY AN OFFICER OF THE COMPANY TO THE ARCHITECT 10 DAYS PRIOR TO BID OPENING THAT THIS SERVICE WILL BE PERFORMED.

8. VALVES NOT IN BOXES SHALL BE BEACON BRONZE-BODY, DOUBLE-SEAL, FULL-FLOW UNION BALL TYPE, WITH TEFLON SEATS AND SEALS, DESIGNED FOR A WORKING PRESSURE OF 27" Hg VACUUM TO 400 PSI WITH CHROME-PLATED BRASS BALLS WHICH SEAL IN BOTH DIRECTIONS. EACH VALVE SHALL BE SO DESIGNED THAT ONLY A QUARTER TURN OF THE LEVER TYPE HANDLE IS NECESSARY BETWEEN THE OPEN AND CLOSED POSITIONS. VALVE DESIGN SHALL ELIMINATE THE NEED FOR UNIONS BY PERMITTING REMOVAL OR SWING-AWAY OF THE CENTER VALVE SECTION OUT-OF-LINE. VALVES SHALL CONFORM TO NFPA STANDARDS. VALVES SHALL BE SUPPLIED PROPERLY WASHED FOR OXYGEN SERVICE. GAS SERVICE LABELS SHALL BE PROVIDED FOR EACH SERVICE AS REQUIRED.

9. PROVIDE GAUGES ON SYSTEMS AS REQUIRED BY NFPA 99, CURRENT EDITION, AND WHERE INDICATED ON THE DRAWINGS.

10. GAUGES FOR PIPELINE INSTALLATION SHALL BE EQUAL TO OHMEDA MAIN LINE GAUGES AS FOLLOWS:

	SERVICE	CALIBRATION	STOCK NO.
a.	OXYGEN, N20, AIR	0-100 PSI	841-0014-300
b.	VACUUM	0-30" Hg.	395-7558-300
c.	NITROGEN	0-400 PSI	841-0007-300

11. WALL SERVICE OUTLETS SHALL BE INSTALLED WHERE INDICATED ON THE DRAWINGS AND SHOWN ON ARCHITECTURAL ELEVATIONS.

12. MEDICAL GAS OUTLETS SHALL MATCH EXISTING.

13. BEFORE ERECTION, ALL PIPE, TUBING, VALVES AND FITTINGS (EXCEPT THOSE SUPPLIED EXPRESSLY CLEANED FOR OXYGEN SERVICES BY MANUFACTURER) SHALL BE THOROUGHLY CLEANSED OF ALL GREASE, OIL OR OTHER READILY OXIDIZABLE MATERIALS BY WASHING IN A HOT SOLUTION OF SODIUM CARBONATE OR TRISODIUM PHOSPHATE MIXED IN EQUAL PROPORTIONS OF ONE POUND TO THREE GALLONS OF WATER. SCRUBBING AND CONTINUOUS AGITATION OF THE PARTS SHALL BE EMPLOYED WHERE NECESSARY TO REMOVE ALL DEPOSITS AND INSURE COMPLETE CLEANSING. AFTER WASHING, ALL MATERIALS SHALL BE RINSED THOROUGHLY IN CLEAN, HOT WATER. AFTER CLEANSING, GREAT CARE MUST BE EXERCISED IN THE STORAGE AND HANDLING OF ALL MATERIALS AND IN THE CONDITION OF TOOLS USED IN CUTTING AND REAMING TO PREVENT OIL OR GREASE BEING INTRODUCED INTO THE TUBING. WHERE SUCH CONTAMINATION IS KNOWN TO HAVE OCCURRED, THE MATERIALS AFFECTED MUST BE REWASHED AND THEN RINSED.

14. AFTER INSTALLATION OF THE PIPING, BUT BEFORE INSTALLATION OF THE STATION OUTLETS AND OTHER MEDICAL GAS SYSTEM COMPONENTS (e.g., PRESSURE-ACTUATING SWITCHES FOR ALARMS, MANIFOLDS, PRESSURE GAUGES OR PRESSURE RELIEF VALVES), THE LINE SHALL BE BLOWN CLEAR BY MEANS OF OIL-FREE, DRY AIR OR NITROGEN. THE SYSTEM SHALL BE TESTED IN ACCORDANCE WITH NFPA 99 4-5.1.3 "MEDICAL GAS SYSTEM TEST".

15. ALL PIPING SHALL BE SUPPORTED WITH COPPER-CLAD HANGERS WITH POLYSTYRENE OR NEOPRENE INSERTS OR PADS AT APPROPRIATE INTERVALS AND NOT SUPPORTED BY OTHER PIPING.

F. FITTINGS AND PIPING CONNECTED WITH PLUMBING FIXTURES SHALL BE BRASS AND, WHEREVER EXPOSED, SHALL BE POLISHED CHROME-PLATED.

G. FURNISH AND INSTALL ALL REQUIRED WATER, WASTE, SOIL, AND VENT CONNECTIONS TO ALL PLUMBING FIXTURES AND EQUIPMENT, TOGETHER WITH ALL FITTINGS, SUPPORTS, FASTENING DEVICES, COCKS, VALVES, TRAPS, ETC., LEAVING ALL IN COMPLETE WORKING ORDER.

H. PLUMBING FIXTURES SHALL BE PROVIDED AS SCHEDULED ON THE DRAWINGS. PLUMBING FIXTURES SHALL BE NEW, EXCEPT WHERE NOTED, AND SHALL BE APPROVED BY THE APPLICABLE WATER CONSERVATION AUTHORITY. THE PLUMBING CONTRACTOR SHALL PROVIDE NECESSARY CHROME PLATED P-TRAPS, SUPPLIES WITH STOPS, RISERS, INLET DRAINS, ETC.

I. SHOCK ARRESTORS SHALL BE SIMILAR TO JOSAM 75000 OR AS MANUFACTURED BY PPP AND SIOUX CHIEF SIZED AS PER THE PDI.

J. FIXTURE CARRIERS SHALL BE PROVIDED FOR WATER CLOSETS, URINALS AND LAVATORIES AS REQUIRED AND SHALL BE FLOOR SUPPORTED AS MANUFACTURED BY JOSAM.

K. TRAP PRIMERS SHALL BE AS REQUIRED BY LOCAL CODES AND SIMILAR TO J.R. SMITH FIR 2698 WATER SAVER TRAP PRIMER.

L. FLOOR DRAINS SHALL BE SIMILAR TO JOSAM SERIES 30000 CAST IRON FLOOR DRAIN WITH NICKALOY STRAINER.

M. CLEANOUTS SHALL BE PROVIDED IN SANITARY WASTE LINES AS SHOWN AND AT EACH CHANGE OF DIRECTION GREATER THAN 45 DEGREES. WALL CLEANOUTS SHALL BE SIMILAR TO JOSAM 5879 WITH BRONZE PLUG AND STAINLESS STEEL COVER. FLOOR CLEANOUTS SHALL BE SIMILAR TO JOSAM 56020 WITH CARPET MARKER FOR CARPETED FLOORS.

N. PIPE, EQUIPMENT, ETC., SHALL BE PROPERLY SUPPORTED FROM STRUCTURE WITH THE USE OF APPROVED TYPE CLEVIS, TRAPEZE HANGERS OR FLOOR STANDS WITH SPACING AS FOLLOWS:

1. STEEL PIPE OR COPPER TUBING - 1-1/2" OR LESS, 6 FOOT INTERVALS.

2. CAST IRON - ONE (1) HANGER PER LENGTH OF PIPE AND NOT EXCEEDING 10'-0" O.C.

3. FITTINGS - WITHIN 2'-0" OF EACH CHANGE OF DIRECTION.

O. INSULATION SHALL BE PROTECTED AT HANGERS BY A SECTION OF CALCIUM SILICATE PIPE INSULATION AND A 12" LONG HALF-ROUND SHEET METAL SHIELD ON THE OUTSIDE OF THE INSULATION. EXTEND PIPING INSULATION FULL THICKNESS WITHOUT INTERRUPTION THROUGH WALLS, FLOORS AND SIMILAR PENETRATIONS.

P. PROVIDE AND INSTALL UNIONS AT PROPER POINTS TO PERMIT REMOVAL OF A PIPE, EQUIPMENT, ETC., WITHOUT INJURY TO OTHER PARTS OF THE SYSTEM AND TO PREVENT CORROSION DUE TO ELECTROLYSIS. ALL EQUIPMENT SHALL BE INSTALLED IN A MANNER TO PERMIT ACCESS FOR SERVICE WITHOUT DISASSEMBLY. UNIONS SHALL BE DIELECTRIC WHERE DISSIMILAR MATERIALS OCCUR. PRESSURE RATINGS SAME AS FITTINGS.

Q. ALL DOMESTIC COLD WATER AND HOT WATER PIPE AND FITTINGS SHALL BE INSULATED WITH ½" THICK OWENS-CORNING FIBERGLASS 25 ASJ/SSL OR APPROVED EQUAL.

R. ROOF DRAIN BODIES AND HORIZONTAL STORM DRAIN PIPING OR DOWNSPOUTS, AND ANY DRAINS RECEIVING CONDENSATE SHALL BE INSULATED WITH 1 ½ " THICK OWENS-CORNING FIBERGLASS FOIL-BACKED ALL SERVICE BLANKET WRAP INSULATION.

S. CHILLED WATER AND HOT WATER HEATING PIPES SHALL BE INSULATED WITH OWENS-CORNING ASJ-SSL-II OR APPROVED EQUAL 1" THICK FOR HOT WATER 1-1/2" THICK FOR CHILLED WATER PIPE INSULATION. FITTINGS AND VALVES SHALL BE FINISHED WITH WHITE 25/50 PVC COVERS OVER MOLDED INSULATION FITTINGS. ALL JOINTS AND LAPS SHALL BE VAPOR SEALED.

T. CONDENSATE DRAIN PIPING, AUXILIARY DRAIN PIPING AND ALL REFRIGERANT PIPING SHALL BE INSULATED WITH 1/2" THICK OWENS-CORNING FIBERGLASS 25 ASJ/SSL OR EQUAL. AUXILIARY DRAIN PAN SHALL BE INSULATED WITH 3/8" THICK ARMAFLEX SHEET INSULATION.

U. PROVIDE INSULATION PRODUCTS MANUFACTURED BY JOHNS-MANVILLE, OWENS-CORNING, ARMSTRONG AND CERTAINTEED. FIBERGLASS PIPE INSULATION SHALL BE ASTM C547-77, CLASS 1. PROVIDE BANDS, WIRES, AND CEMENT AS RECOMMENDED BY INSULATION MANUFACTURER FOR THE APPLICATIONS INDICATED. FLEXIBLE FIBERGLASS DUCTWORK INSULATION SHALL BE ASTM C553-70, TYPE I, CLASS B3.

1. PROVIDE COMPOSITE INSULATION (INSULATION JACKETS, COVERINGS, SEALERS, MASTICS AND ADHESIVE) WITH FLAME-SPREAD RATINGS OF 25 OR LESS AND A SMOKE-DEVELOPED RATING OF 50 OR LESS, AS TESTED BY ASTM K04 (HFFA 255) METHOD.

2. MAINTAIN INTEGRITY OF VAPOR BARRIER JACKETS ON PIPE AND DUCTWORK INSULATION, AND PROTECT TO PREVENT PUNCTURE OR OTHER DAMAGE. SEAL OPEN ENDS OF INSULATION WITH MASTIC. SECTIONALLY SEAL ALL BUTT ENDS OF CHILLED WATER INSULATION OF FITTINGS WITH WHITE VAPOR BARRIER COATING. EXTEND PIPING INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS AND SIMILAR PIPING PENETRATIONS, EXCEPT WHERE OTHERWISE INDICATED. INSTALL PROTECTIVE METAL SHIELDS AND FOAM GLASS INSERTS WHERE PIPE HANGERS BEAR ON OUTSIDE OF INSULATION.

V. ISOLATION VALVES FOR HOT AND CHILLED WATER SYSTEM SHALL BE EQUAL TO MILWAUKEE "BUTTERBALL" OR NIBCO BALL VALVES AND PROVIDED AT EACH PIECE OF EQUIPMENT. PROVIDE AUTO AIR VENTS IN HEATING WATER PIPING WHERE HIGH POINTS OCCUR.

W. RECTANGULAR "LOW PRESSURE" SHEET METAL DUCT SHALL BE FABRICATED OF CONTINUOUS HOT DIP MILL GALVANIZED MINIMUM 26 GAUGE STEEL SHEETS AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS FOR 1.0" W.C. AND FOR THE FIRST 10 TO 15 FEET DOWNSTREAM OF A TERMINAL UNIT (FP/VAV OR VAV) SHALL HAVE AN INTERNAL DUCT LINING EQUAL TO JOHNS-MANVILLE PERMACOTE LINACOUSTIC, 1" THICK, 1.5 LB. DENSITY DUCT LINER. (DUCTS FOR MEDICAL WORK SHALL NOT BE LINED, BUT WILL BE WRAPPED.)

X. ROUND "LOW PRESSURE" DUCT FITTINGS SHALL BE FABRICATED OF CONTINUOUS HOT DIP MILL GALVANIZED MINIMUM 26 GAUGE STEEL SHEETS AND INSTALLED IN ACCORDANCE WITH SMACNA RECOMMENDATIONS FOR 0.5" W.C.

Y. RECTANGULAR AND ROUND "PRIMARY AIR" SHEET METAL DUCT AND FITTINGS SHALL BE FABRICATED OF CONTINUOUS HOT DIP MILL GALVANIZED MINIMUM 26 GAUGE STEEL SHEETS AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS FOR 3.0" W.C., AND RECTANGULAR DUCT SHALL HAVE AN INTERNAL DUCT LINING EQUAL TO JOHNS-MANVILLE PERMACOTE LINACOUSTIC, 1" THICK, 1.5 LB. DENSITY DUCT LINER (DUCTS FOR MEDICAL WORK SHALL NOT BE LINED, BUT WILL BE WRAPPED). CONSTRUCTION METHODS:

1. RECTANGULAR - DUCTMATE SYSTEM

2. ROUND - SPIRAL DUCT SYSTEM

Z. ROUND DUCTS AND UNLINED RECTANGULAR DUCTS SHALL BE INSULATED WITH 3/4 POUND PER CUBIC FOOT MINIMUM DENSITY, 2" THICK, COMMERCIAL GRADE, OWENS-CORNING FIBERGLASS FOIL BACKED ALL SERVICE DUCT WRAP, OR EQUAL.

AA. FLEXIBLE DUCTS SHALL BE FLEXMASTER TYPE 8M, THERMAFLEX MKE OR WIREMOLD WK. FLEXIBLE DUCTS SHALL BE LISTED AS U.L. 181 CLASS (1) AIR DUCT AND SHALL COMPLY WITH NFPA STANDARDS 90A AND 90B.

BB. CONTRACTOR SHALL BALANCE THE HVAC SYSTEMS FOR DESIGNATED AIR AND WATER QUANTITIES AND SHALL BE N.E.B.B. OR A.A.B.C. APPROVED. SUBMIT REPORT ON NEBB, AABC, OR SMACNA FORMS FOR APPROVAL BY THE ENGINEER. EXTENT OF BALANCING WORK TO INCLUDE REBALANCING OF EXISTING SUPPLY AND EXHAUST SYSTEMS AS REQUIRED ACHIEVING DESIGN CFM ON SUBJECT PROJECT.

CC. DUCT ACCESS DOORS: PROVIDE RIGID AND CLOSE FITTING DOORS OF GALVANIZED STEEL WITH SEALING GASKETS AND QUICK FASTENING LOCKING DEVICES. FOR INTERNALLY LINED OR INSTALLED DUCTWORK, INSTALL MINIMUM ONE INCH THICK INSULATION WITH SHEET METAL COVER. INSTALL AT EACH FIRE DAMPER. DOORS TO BE EQUAL TO FLEXMASTER "THE INSPECTOR SERIES."

DD. FURNISH AND INSTALL SMOKE, FIRE AND/OR FIRE/SMOKE DAMPERS WHERE SHOWN ON THE DRAWINGS, AND REQUIRED BY THE GOVERNING AUTHORITY. DAMPERS SHALL BE INSTALLED AS RECOMMENDED BY SMACNA AND COMPLY WITH U.L. AND LOCAL ORDINANCES AS REQUIRED BY THE GOVERNING AUTHORITY.

EE. FAN COIL UNITS (CHILLED WATER):

1. DESCRIPTION: THE ENVIRONMENTAL CONTROL, PRECISION AIR CONDITIONING UNITS SHALL BE PROVIDED WITH A HIGH SENSIBLE COOLING SYSTEM, SELF-CONTAINED, FACTORY ASSEMBLED, PIPED, WIRED, AND FACTORY TESTED PRIOR TO SHIPMENT. UNITS SHALL INCLUDE AN ENCLOSURE/CABINET ASSEMBLY, FAN SECTION, FILTER SECTION, COOLING COIL, CONTROLS, AND INTERCONNECTING PIPING INTERNAL TO UNIT. ACCEPTABLE MANUFACTURERS ARE DATA-AIRE, LIEBERT, STULTZ AND COMPU-AIRE.

2. THE FRAME SHALL BE CONSTRUCTED OF 18 GAUGE WELDED TUBULAR STEEL AND BE COATED WITH A HEAVY CORROSION INHIBITING FINISH FOR LONG LIFE. THE SIDE PANELS SHALL BE OF GALVANIZED STEEL. THE CABINET SHALL BE INSULATED WITH ONE-QUARTER INCH (1/4") THICK, CLOSED CELL INSULATION. THE UNIT SHALL BE SERVICEABLE THROUGH THE REMOVABLE SIDE PANELS.

3. THE CHILLED WATER SYSTEM SHALL INCLUDE A CHILLED WATER COIL CONSISTING OF COPPER TUBES AND ALUMINUM FINS FOR MAXIMUM HEAT TRANSFER. THE CHILLED WATER FLOW SHALL BE CONTROLLED BY A TWO-WAY VALVE FOR ACCURATE AND ECONOMICAL TEMPERATURE CONTROL AND DEHUMIDIFICATION. THE CONDENSATE DRAIN PAN SHALL BE CONSTRUCTED OF STAINLESS STEEL AND PROVIDE A POSITIVE DRAIN TO PREVENT STANDING WATER IN THE CONDENSATE PAN.

4. THE EVAPORATOR BLOWER ASSEMBLY SHALL BE A DOUBLE WIDTH, DOUBLE INLET, BLOWER WITH BELT DRIVE AND VARIABLE PITCH SHEAVE AND SELF-ALIGNING BALL BEARINGS RATED FOR AN AVERAGE LIFE OF 100,000 HOURS.

5. A TWO (2") INCH, MERV 8 (BASED ON ASHRAE STD. 52.2) DISPOSABLE FILTER OF 20" SQUARE (20" X 20") SHALL BE PROVIDED.

6. ALL ELECTRICAL COMPONENTS, INCLUDING CAPACITORS, CONTACTORS, RELAYS AND CONTROL TRANSFORMERS SHALL BE PRE-WIRED AND CONTAINED IN A HINGED ELECTRICAL BOX THAT SHALL SWING OUT FOR EASY ACCESS AND SERVICING. THE CONTROL CIRCUIT VOLTAGE SHALL BE 24 VOLTS. THE INPUT ELECTRICAL POWER SHALL BE 277V, 1 PH, 60 HZ. A FACTORY INSTALLED MICRO-SWITCH WILL DISABLE THE UNIT PRIOR TO CONDENSATE PAN OVERFLOW SHOULD THE DRAIN BECOME PLUGGED WITH DEBRIS.

7. PRECISE TEMPERATURE AND HUMIDITY REGULATION SHALL BE PROVIDED BY THE MANUFACTURER'S PROGRAMMABLE CONTROL SYSTEM TO INCLUDE THE WALL MOUNT DISPLAY MODULE, WALL MOUNTED TEMPERATURE AND HUMIDITY SENSOR AND UNIT MOUNTED CONTROL MODULE. AN EASY TO READ FULL FUNCTION LCD SHALL PROVIDE UNIT OPERATING CONDITIONS, ROOM CONDITIONS AND ALARMS.

8. THE STEAM HUMIDIFIER SHALL BE OF THE SELF-CONTAINED CYLINDER TYPE WITH ELECTRONIC CONTROLS. THE HUMIDIFIER SHALL DISCHARGE PURE STEAM WITH NO MATERIAL DUST CARRY-OVER, AND SHALL HAVE SELF-REGULATING FLUSH CYCLE. CYLINDERS SHALL BE DISPOSABLE NOT REQUIRING CLEANING OR MAINTENANCE. HUMIDIFIER RATE SHALL AUTOMATICALLY ADAPT, BOTH IN FREQUENCY AND DURATION, TO VARIATIONS IN THE INCOMING WATER.

9. A CONDENSATE PUMP SHALL BE PROVIDED WITH THE UNIT AND SHALL HAVE A CAPACITY OF 60 GPH AT 8 FEET OF HEAD.

1

FF. MOTOR STARTER/DISCONNECT:

1. MOTOR STARTER/DISCONNECT SWITCH FOR 3/4 HP, 3 PHASE MOTORS AND LARGER SHALL BE ACROSS-THE-LINE NON-REVERSING COMBINATION STARTERS WITH FUSIBLE DISCONNECT SWITCH TYPE RATED IN ACCORDANCE WITH NEMA STANDARDS, SIZES AND HORSEPOWER RATINGS. UNITS SHALL BE MOUNTED IN NEMA 1 ENCLOSURES WHERE INSTALLED INDOORS, AND NEMA 4 ENCLOSURES WHERE INSTALLED OUTDOORS. MINIMUM SIZE SHALL BE NEMA SIZE 1.

a. OVERLOAD RELAYS OF THE MELTING ALLOY TYPE SHALL BE PROVIDED IN ALL PHASES. THERMAL UNITS SHALL BE OF ONE-PIECE CONSTRUCTION AND INTERCHANGEABLE.
b. STARTERS SHALL BE EQUIPPED WITH ONE SET OF AUXILIARY CONTACTS AND BE SUITABLE FOR THE ADDITION OF AT LEAST THREE EXTERNAL ELECTRICAL INTERLOCKS OF ANY ARRANGEMENT NORMALLY OPEN OR NORMALLY CLOSED.
c. ALL MAGNETIC STARTERS WITH "HAND-OFF-AUTO" SELECTOR SWITCH AND PILOT LIGHT SHALL BE EQUAL TO SQUARE D CLASS 8536 OR SIEMENS CLASS SCF WITH MELTING ALLOY OVERLOAD RELAYS AND FOR EACH PHASE, AND RED PILOT LIGHT IN COVER OF GENERAL PURPOSE ENCLOSURE. COIL VOLTAGE SHALL BE 120 VOLT AND STARTER SHALL HAVE A CONTROL VOLTAGE TRANSFORMER.
d. PUSH BUTTON STATIONS AND/OR HAND-OFF-AUTOMATIC SWITCHES SHALL BE REMOTE LOCATED AND WIRED UNDER THIS SECTION WHERE SO SHOWN OR SCHEDULED ON THE DRAWINGS.

2. MOTOR STARTER/DISCONNECT SWITCH FOR SINGLE PHASE MOTORS 1 H.P. AND SMALLER SHALL BE COMBINATION STARTER/TOGGLE SWITCH IN ACCORDANCE WITH NEMA STANDARDS. UNITS SHALL BE SUPPLIED WITH HEAVY DUTY POWER RELAYS. ALL UNITS MOUNTED INDOORS SHALL BE IN NEMA 1 ENCLOSURES, AND WHERE INSTALLED OUTDOORS SHALL BE IN NEMA 4 ENCLOSURES. MINIMUM SIZE SHALL BE NEMA SIZE 0.

a. UNITS SHALL BE EQUAL TO SIEMENS CLASS MSF AND TYPE SRD POWER RELAYS WITH ENCLOSURES.

GG. TEMPERATURE CONTROLS:

1. ALL TEMPERATURE CONTROLS NECESSARY FOR THE RENOVATION AND FINISH-OUT OF THE SPACE SHALL BE PROVIDED BY SIEMENS AND COMPLY WITH THE BASE BUILDING SYSTEM AND CONTROL SPECIFICATIONS. BUILDING STANDARD CONTROL SYSTEM COMPONENTS SHALL BE UTILIZED.

2. NEW THERMOSTATS OR SENSORS SHALL MATCH THE EXISTING THERMOSTATS OR SENSORS.

3. ALL CONTROL WIRING AND POWER WIRING FOR CONTROLS SHALL BE BY THE CONTROLS SUB-CONTRACTOR.

4. TERMINAL UNITS, FAN-COIL UNITS AND MOTORIZED SUPPLY AIR DAMPERS SHALL BE CONTROLLED BY ROOM THERMOSTATS PIPED WITH MAIN CONTROL PRESSURE AND BRANCH PRESSURE FROM THERMOSTAT TO OPERATORS, CONTROL VALVES, ETC.

5. THE FAN COIL UNITS SHALL BE CONNECTED TO THE BASE BUILDING ENERGY MANAGEMENT SYSTEM FOR START AND STOP SCHEDULES. THE AUXILIARY CONTACTS IN THE STARTER/DISCONNECTS SHALL BE USED TO AUTOMATE THE START AND STOP FUNCTIONS.

6. AT THE COMPLETION OF CONSTRUCTION, ALL NEW AND EXISTING THERMOSTATS AND SENSORS SHALL BE CALIBRATED.

HH. TEST AND BALANCE:

1. THE GENERAL CONTRACTOR SHALL RETAIN THE SERVICES OF AN INDEPENDENT CERTIFIED AIR BALANCE FIRM TO PERFORM THE TESTING AND BALANCING AND PREPARE REPORTS TO THE GENERAL CONTRACTOR. IF THE MECHANICAL CONTRACTOR IS NEBB CERTIFIED, THEY CAN BALANCE THE SYSTEM.

2. TESTING AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH THESE SPECIFICATIONS AND IN ACC

GENERAL NOTES - PLUMBING

A. ALL MECHANICAL, ELECTRICAL, AND PLUMBING WORK SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL BUILDING CODES. REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS FOR MECHANICAL AND PLUMBING CONSTRUCTION.

B. INDICATED LOCATIONS ARE APPROXIMATE.

C. COORDINATE WITH OWNER AND PERSONNEL THE SHUT-DOWN OF THE EXISTING SITE UTILITIES.

D. ROUTE ALL PLUMBING PIPING AS TIGHT AS POSSIBLE TO STRUCTURE. PIPING SHALL BE INSTALLED PARALLEL/PERPENDICULAR TO WALLS AND COLUMN LINES.

E. CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR REQUIRED FOR A COMPLETE WORKING AND COORDINATED SYSTEM.

F. COORDINATE THE EXACT LOCATION OF MECHANICAL, PLUMBING, AND FIRE PROTECTION EQUIPMENT WITH THE LOCATIONS OF LIGHT FIXTURES, PIPING, CONDUIT, AND OTHER CONSTRUCTION, TO ALLOW FOR PROPER ACCESS TO SERVICE EQUIPMENT.

G. COORDINATE ALL NEW WORK WITH ALL TRADES. WORK SHOWN ON THESE DRAWINGS ARE INTENDED TO PROVIDE THE OVERALL ENGINEERING DESIGN CONCEPT AND DOES NOT PROVIDE FOR RELOCATIONS, OFFSETS, ETC., THAT ARE REQUIRED BY THE COORDINATION OF TRADES. THIS ADDITIONAL WORK SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

H. IT IS THE REQUIREMENT OF THESE DOCUMENTS TO ALLOW ALL CEILING CONSTRUCTION AND HEIGHTS TO BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS. COORDINATE THE LOCATION OF PIPING AND PROVIDE OFFSETS IN PIPING AS REQUIRED TO MEET THIS REQUIREMENT.

I. CONDUIT, PIPING, AND DUCTWORK SHALL BE INDEPENDENTLY SUPPORTED, AND EACH SUPPORT SHALL BE INDEPENDENT OF PARTITION AND CEILING SYSTEM SUPPORTS. WHERE INDEPENDENT SUPPORT IS NOT POSSIBLE AN ENGINEERED SUPPORT SYSTEM SHALL BE UTILIZED.

J. INSTALL ALL FLOOR MOUNTED EQUIPMENT ON CONCRETE HOUSEKEEPING PADS. GENERAL CONTRACTOR SHALL PROVIDE HOUSEKEEPING PADS, COORDINATE REQUIREMENTS WITH GENERAL CONTRACTOR.

K. ALL WORK SHALL BE SCHEDULED AND PERFORMED IN STRICT COORDINATION WITH ARCHITECTURAL PHASING PLANS. CONTRACTOR SHALL SCHEDULE AND PERFORM WORK IN SEQUENCE WITH THE PHASING PLAN.

L. PROTECT EQUIPMENT AND WORK FROM DAMAGE DURING HANDLING AND INSTALLATION UNTIL COMPLETION OF CONSTRUCTION.

M. REMOVE ALL EXCESS MATERIAL AND DEBRIS AND CLEAN ALL EQUIPMENT UPON COMPLETION OF WORK. TOUCH UP WITH PAINT WHERE REQUIRED.

N. ALL CONNECTIONS BETWEEN PIPES OF DISSIMILAR MATERIALS SHALL BE MADE WITH DIELECTRIC UNIONS.

O. LOCATE ISOLATION VALVES FOR EQUIPMENT AS CLOSE TO THE MAIN AS POSSIBLE.

P. PROVIDE CLEANOUTS AT THE BASE OF ALL STORM AND SANITARY STACKS.

Q. ALL SANITARY SEWER AND STORM DRAIN SYSTEM WALL CLEANOUTS SHALL BE PLACED AT 18" AFF UNLESS OTHERWISE NOTED.

R. COORDINATE ALL FIRE PROTECTION SPRINKLER LOCATIONS AND MOUNTING STYLES WITH LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS.

S. DO NOT ROUTE PIPING INSIDE ELECTRICAL AND COMMUNICATION ROOMS, IN UNAVOIDABLE INSTANCES, ALL EQUIPMENT SHALL BE PROTECTED FROM OVERHEAD PIPING WITH DRAIN PANS. ROUTE DRAIN FROM DRAIN PANS TO NEAREST FLOOR DRAIN IN MECHANICAL AREAS. WHERE NO FLOOR DRAIN IS ACCESSIBLE ROUTE AS INDIRECT WASTE TO PLUMBING FIXTURE AS INDICATED ON CONTRACT DRAWINGS, OR NEAREST LAVATORY TAILPIECE. PROVIDE SENSOR IN DRAIN PAN TO SEND ALARM TO BAS IN CASE OF LEAKAGE INTO PAN.

T. EACH SUBCONTRACTOR SHALL PROVIDE ADEQUATELY SIZED ACCESS DOORS TO PROVIDE REQUIRED ACCESS THROUGH HARD SURFACES TO THEIR WORK REQUIRING ACCESS (ANY FLOW DEVICES, VALVES, ETC.). SUBCONTRACTOR IS ALSO REQUIRED TO PROVIDE ADEQUATE LOCATION INFORMATION SO ACCESS CAN BE INSTALLED BY INTERIORS SUBCONTRACTOR.

U. REFER TO ARCHITECTURAL DRAWINGS FOR RATED WALL TYPES.

V. ALL PLUMBING PIPING SHALL BE IDENTIFIED IN ACCORDANCE WITH THE SPECIFICATIONS.

W. SLOPE AND ARRANGE WATER PIPING SYSTEMS TO ESTABLISH HIGH POINTS FOR AIR ELIMINATION AND LOW POINTS TO PERMIT PROPER DRAINING OF EACH LINE.

X. COORDINATE ALL PIPING FLOOR PENETRATIONS WITH STRUCTURAL.

Y. SPACE LOCATIONS FOR MATERIALS, EQUIPMENT AND FIXTURES HAVE BEEN MADE ON THE BASIS OF PRESENT AND KNOWN FUTURE REQUIREMENTS AND THE DIMENSIONS OF ITEMS OF EQUIPMENT OR FIXTURES OF A PARTICULAR MANUFACTURER WHETHER INDICATED OR NOT. THE CONTRACTOR SHALL VERIFY THAT ALL MATERIALS, EQUIPMENT AND FIXTURES PROPOSED FOR USE ON THIS PROJECT ARE WITHIN THE CONSTRAINTS OF THE ALLOCATED SPACE.

Z. PIPE PENETRATIONS THROUGH WALLS SHALL MAINTAIN THE CONSTRUCTION/FIRE RATING OF THE WALL.

AA. REFER TO STRUCTURAL ENGINEER FOR METHOD OF PIPE PENETRATIONS THROUGH STRUCTURAL MEMBERS (BEAMS, JOISTS, ...).

DEMOLITION

A. ALL CAPPED SANITARY WASTE, VENTS AND DOMESTIC WATER PIPING THAT ARE NOT BEING USED, NEED TO BE REMOVED BACK TO THE MAINS AND CAPPED.

B. PROVIDE ADDITIONAL VALVES, FITTINGS AND/OR PIPING AS NECESSARY TO PROVIDE UNINTERRUPTED SERVICE TO AREAS OUTSIDE AND INSIDE OF THE AREA WORK.

C. ALL WORK SHALL BE PERFORMED IN STRICT COORDINATION WITH HOSPITAL SCHEDULES, OCCUPANCIES AND WORK. CONTRACTOR SHALL COORDINATE WITH HOSPITAL REPRESENTATIVE.

D. ALL NECESSARY SHUTDOWNS OR OUT OF PHASE WORK SHALL BE SCHEDULED WITH THE HOSPITAL REPRESENTATIVE.

E. INFORMATION PROVIDED ON THESE DRAWINGS HAVE BEEN TAKEN FROM DESIGN DRAWING AND FIELD OBSERVATIONS. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PRICING AND COMMENCEMENT OF WORK.

F. WHERE EXISTING WALLS ARE DEMOLISHED, REMOVE ALL EXISTING PLUMBING FIXTURES AND THEIR ASSOCIATED PIPING BACK TO THE POINT OF ORIGINATION. ALL EXISTING PIPING THAT WAS SHUT DOWN DURING DEMOLITION SHALL BE TURNED ON AND CHECKED FOR LEAKS.

G. PROVIDE FOR ANY AND ALL DEMOLITION WORK NECESSARY TO ACCOMMODATE ALL NEW CONSTRUCTION, INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING OR ELECTRICAL WORK.

H. IF DEMOLITION IS REQUIRED TO INSTALL AN ITEM, THE CONTRACTOR SHALL RESTORE THE AREA TO PREVIOUS CONDITION, OR REPLACE DAMAGED ITEMS WITH NEW ITEMS TO MATCH EXISTING.

I. A DEVICE OR PIPING WITH AN 'X' INDICATES EXISTING TO BE REMOVED INCLUDING ALL ASSOCIATED VALVES AND FIXTURES. PIPING TO BE VALVED AND CAPPED AT POINT OF ORIGIN.

J. CONTRACTOR SHALL REMOVE ALL FIXTURES, ASSOCIATED PIPING AND EQUIPMENT INDICATED TO BE REMOVED AND/OR RELOCATED UNLESS NOTED OTHERWISE. PROVIDE AND INSTALL ALL NECESSARY FIXTURES, EQUIPMENT AND ACCESSORIES REQUIRED TO MAINTAIN SERVICE TO ALL "EXISTING TO REMAIN" FIXTURES AND EQUIPMENT THAT MAY BE INTERRUPTED DURING DEMOLITION.

K. WHERE EXISTING MECHANICAL EQUIPMENT IS DEMOLISHED, REMOVE ALL RELATED PLUMBING TO THE EQUIPMENT AND THEIR ASSOCIATED PIPING BACK TO THE POINT OF ORIGINATION AND VALVE & CAP.

L. ITEMS REMOVED AND NOT REINSTALLED OR RETURNED TO OWNER SHALL BE DISPOSED OF LEGALLY (COORDINATE WITH OWNER FOR THE DISPOSAL).

M. ALL EXISTING PLUMBING RISER(S) LOCATED IN THE DEMOLISHED WALLS/CHASES MUST BE RELOCATED TO AN APPROVED LOCATION BY THE ARCHITECT THEN RECONNECTED ON ADJACENT FLOORS.

N. ANY FLOOR DRAINS OR FLOOR SINKS NOT REQUIRED SHALL BE REMOVED COMPLETELY. DRAINS ON THE GROUND FLOOR SHALL BE PERMANENTLY PLUGGED WITH GROUT AND CUT BACK TO ACCEPT NEW FLOORING MATERIAL.

RENOVATION

A. COORDINATE ALL PIPING ROUTING WITH OTHER TRADES BEFORE INSTALLING PIPING. OFFSET PIPING WHERE POSSIBLE, TO COORDINATE WITH OTHER TRADES.

B. CONNECT VENT AND WATER FOR NEW FIXTURES TO NEAREST PIPING IN CEILING SPACE ON THIS FLOOR. CONNECT WASTE FOR NEW FIXTURES TO NEAREST PIPING IN CEILING SPACE OF FLOOR BELOW

C. WHERE POSSIBLE, REUSE EXISTING FLOOR PENETRATIONS AFTER REVIEW AND APPROVAL BY ARCHITECT. LOCATIONS SHOWN ON THESE DRAWINGS REFLECT DESIGN INTENT AND ARE BASED ON AS-BUILT DRAWINGS MADE AVAILABLE TO THE ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL LOCATIONS OF NEW FLOOR PENETRATIONS BASED ON FIELD INVESTIGATION AND VERIFICATION, PRIOR TO STARTING NEW WORK.

D. WHERE UNAVOIDABLE, PIPE ROUTING MAY REQUIRE BORING THROUGH STRUCTURAL GIRDERS. CONTRACTOR SHALL X-RAY GIRDER AND PREPARE A DRAWING AND SUPPORTING DOCUMENTS SHOWING THE PROPOSED BORE LOCATIONS FOR PIPING. SUBMIT THIS PROPOSED PIPING LAYOUT FOR ENGINEER/ARCHITECT/OWNER REVIEW AND APPROVAL PRIOR TO COMMENCING WORK. PROCEED WITH NEW WORK ONLY WITH WRITTEN STATEMENT TO PROCEED FROM ARCHITECT OR STRUCTURAL ENGINEER.

E. FOR ALL EXISTING FLOOR PENETRATIONS NOT USED, CUT PIPING JUST BELOW FLOOR LEVEL, PLUG PIPING WATER-TIGHT AND FILL WITH GROUT. REPAIR AND PATCH FLOOR TO MATCH EXISTING.

F. CONFIRM WITH ARCHITECTURAL DRAWINGS THE REQUIRED MOUNTING HEIGHTS PRIOR TO INSTALLATIONRE-INSTALLATION OF FIXTURES.

G. ALL CONNECTIONS TO EXISTING PIPING SHALL BE MADE TO SAME SIZE OR LARGER EXISTING PIPING. IF IT IS DETERMINED BY FIELD INVESTIGATION THAT THE EXISTING PIPE SIZE TO BE CONNECTED TO IS SMALLER THAN THE NEW PIPE SIZE, NOTIFY ARCHENGR BEFORE PROCEEDING WITH WORK.

H. CONNECTIONS TO EXISTING SANITARY PIPING IS BASED ON EXISTING DRAWINGS AND LIMITED FIELD INVESTIGATION DUE TO INACCESSIBLE AREAS. PIPING LESS THAN 4" SHALL HAVE A 1/4" SLOPE PER FOOT, PIPING 4" AND LARGER A 1/8" SLOPE PER FOOT. IF IT IS DETERMINED DURING CONSTRUCTION/FIELD SURVEY THAT THE PIPE ROUTING CAN NOT TIE-IN TO EXISTING SANITARY PIPING AS SHOWN ON THESE DRAWINGS BECAUSE OF ELEVATION DIFFERENCES, CONTRACTOR SHALL PREPARE AN ADJUSTED PIPING ROUTING AND CONNECTION TO EXISTING PIPING BASED ON ACTUAL FIELD CONDITIONS. SUBMIT THIS PROPOSED PIPING LAYOUT FOR ENGINEER/ARCHITECT/OWNER REVIEW PRIOR TO CONTINUING WITH CONSTRUCTION.

FIRE PROTECTION NOTES

A. FIRE PROTECTION CONTRACTOR SHALL REFER TO THE PLUMBING DRAWINGS FOR SCOPE OF WORK INCLUDING THE GENERAL NOTES ON THIS SHEET.

B. THE BUILDING'S FIRE PROTECTION SYSTEM MUST REMAIN IN SERVICE DURING CONSTRUCTION. FIRE PROTECTION ENGINEER IS RESPONSIBLE FOR EXTENT OF DEMOLITION, RELOCATION, AND RENOVATION OF THE FIRE PROTECTION SYSTEM.

C. RENOVATION AND DEMOLITION SCOPE OF WORK FOR FIRE PROTECTION SYSTEM IS THE RESPONSIBILITY OF THE FIRE PROTECTION ENGINEER.

D. DESIGN OF THE SPRINKLER SYSTEM SHALL BE UNDER DIRECT SUPERVISION OF AN RME (RESPONSIBLE MANAGING EMPLOYEE) EXPERIENCED IN DESIGN OF THIS WORK AND LICENSED IN THE STATE OF COLORADO. ALL DESIGN SUBMITTAL DOCUMENTS SHALL BEAR THE RME's SIGNED AND DATED REGISTRATION NUMBER. THE SYSTEM SHALL BE INSTALLED BY A FIRM HAVING MINIMUM THREE YEARS EXPERIENCE REGULARLY ENGAGED IN THE DESIGN AND INSTALLATION OF AUTOMATIC FIRE PROTECTION SYSTEMS IN ACCORDANCE WITH REQUIREMENTS OF THE NATIONAL FIRE PROTECTION ASSOCIATION AND THE STATE OF COLORADO FIRE MARSHALL'S OFFICE. EVIDENCE TO SUPPORT THE ABOVE REQUIREMENTS SHALL BE SUBMITTED WITH SHOP DRAWINGS. WORKING PLANS SHALL BE SEALED BY AN ENGINEER REGISTERED BY THE COLORADO STATE BOARD FOR PROFESSIONAL ENGINEERS IN THE FIRE PROTECTION SPECIALTY.

E. DEMOLISH/RELOCATE/PROVIDE NEW SPRINKLER HEADS AS REQUIRED BY THE RENOVATION/EXPANSION SPACE FLOOR PLANS. FIRE PROTECTION SYSTEM FOR THE BUILDING MUST REMAIN IN SERVICE DURING CONSTRUCTION.

F. PROVIDE STANDARD QUICK RESPONSE SPRINKLER HEADS FOR ALL AREAS, UNLESS OTHERWISE NOTED.

G. COORDINATE SPRINKLER AND FIRE MAIN LOCATIONS WITH ALL TRADES.

H. COORDINATE ALL FIRE PROTECTION SPRINKLER LOCATIONS AND MOUNTING STYLES WITH LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS.

PROJECT DESIGN CRITERIA

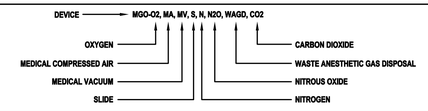
LOCATION:	
CITY/STATE	AURORA, COLORADO
APPLICABLE CODES:	
BUILDING	2009 IBC
MECHANICAL	2009 IMC
PLUMBING	2009 IPC
ENERGY	2009 IECC
ELECTRICAL	2011 NEC
LATITUDE:	
DEG. N. LAT.	39.69
ELEVATION:	
FT. ABOVE SEA LEVEL	5514

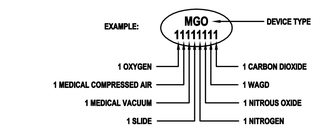
MEDICAL GAS SYMBOLS

SYMBOL	DESCRIPTION
O2	MEDICAL OXYGEN PIPING
MA	MEDICAL AIR PIPING
MV	MEDICAL VACUUM PIPING
WAGD	WASTE ANESTHETIC GAS DISPOSAL PIPING
N	MEDICAL NITROGEN PIPING
N2O	MEDICAL NITROUS OXIDE PIPING
CO2	CARBON DIOXIDE PIPING
	MEDICAL GAS PIPING DROPS IN WALL FULL SIZE
MGO	MEDICAL GAS OUTLETS
AA	AREA ALARM
MA	MASTER ALARM
ZVB	ZONE VALVE BOX
	MASTER ALARM SENSOR
	AREA ALARM SENSOR
	LOCKABLE TYPE BALL VALVE

MEDICAL GAS LEGEND

MAP	= MASTER ALARM PANEL	MED AIR	= MEDICAL COMPRESSED AIR
MGB	= MEDICAL GAS CEILING BOOM	MV	= MEDICAL VACUUM
MGC	= MEDICAL GAS CEILING COLUMN	O2	= OXYGEN
MGD	= MEDICAL GAS DROP	S	= SLIDE
MGH	= MEDICAL GAS HEADWALL	AAP	= AREA ALARM PANEL
MGO	= MEDICAL GAS WALL OUTLET	ZVB	= ZONE VALVE BOX
MGP	= MEDICAL GAS PEDESTAL	NCP	= NITROGEN CONTROL PANEL
MVE	= MEDICAL GAS VACUUM EXHAUST	N	= NITROGEN
ME	= MEDICAL EQUIPMENT	N2O	= NITROUS DIOXIDE GAS
	COMPRESSED AIR (FOR BRAKES	CO2	= CARBON DIOXIDE GAS
	ON MEDICAL BOOMS)	WAGD	= WASTE ANESTHETIC GAS
			DISPOSAL





MEDICAL GAS NOTES:

A. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF MEDICAL GAS OUTLETS, ZONE VALVE BOXES AND ALARM PANELS.

B. NOT ALL GASES ARE TO BE USED AT EACH LOCATION. THE GAS ORDER SHOWN IN THE EXAMPLE IS TYPICAL FOR ALL OUTLETS.

C. COORDINATE MEDICAL GAS PIPE ROUTINGS WITH ALL OTHER TRADES BEFORE INSTALLATION.

TYPICAL MOUNTING HEIGHTS FOR MEDICAL GAS DEVICES*:

WALL OUTLETS:	5' (60 INCHES) TO THE CENTER OF THE OUTLET
ZONE VALVE BOX:	5'-0" (60 INCHES) TO THE TOP OF THE ZONE VALVE BOX
AREA ALARM:	5'-6" (66 INCHES) TO THE TOP OF THE ALARM
MASTER ALARM:	5'-6" (66 INCHES) TO THE TOP OF THE ALARM
NITROGEN CONTROL CABINET:	5'-2" (62 INCHES) TO THE BOTTOM OF THE PANEL
FIXED CEILING COLUMN:	5'-3" (63 INCHES) TO THE BOTTOM OF THE COLUMN
RETRACTABLE CEILING COLUMN:	5'-10" (70 INCHES) TO THE BOTTOM OF THE COLUMN
CEILING HOSE DROP:	6'-4" (76 INCHES) TO THE BOTTOM OF THE HOSE
ASSEMBLY CEILING ARMS/BOOMS:	CONSULT MANUFACTURERS RECOMMENDATIONS

* ALL DIMENSION HEIGHTS SHALL BE COORDINATED WITH ARCHITECTURAL ELEVATION.

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation. **2009 IBC 105.4**

Failure to follow the approved plans may result in an hourly to review the field changes for code compliance.

PLUMBING SYMBOLS

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATICALLY AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER (TEMP. AS NOTED)
	DOMESTIC HOT WATER RETURN (TEMP. AS NOTED)
HP	HIGH PRESSURE COLD WATER
	COLD OR HOT REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER (RPZ)
	EXISTING PIPING TO BE REMOVED
	PIPING TO BE ELECTRICALLY HEAT TRACED
SS	SANITARY SEWER PIPING (SOIL OR WASTE)
GW	GREASY WASTE SEWER PIPING
	SANITARY VENT PIPING
SSD	SUB-SOIL DRAIN PIPING, FOOTING DRAIN PIPING
AW	ACID WASTE PIPING
AV	ACID VENT PIPING
IW	INDIRECT WASTE
SED	SEWAGE EJECTOR DISCHARGE PIPING (PUMPED SANITARY)
CD	CONDENSATE DRAIN PIPING
D	DRAIN PIPING
	CONNECT NEW TO EXISTING
SD	STORM DRAIN PIPING
OD	STORM OVERFLOW DRAIN PIPING
CA	COMPRESSED AIR PIPING
SPD	SUMP PUMP DISCHARGE PIPING (PUMPED STORM WATER)
F	FIRE PROTECTION (STANDPIPE, SPRINKLER, SERVICE)
LPG/MPG	NATURAL GAS PIPING (LOW PRESSURE GAS/MEDIUM PRESSURE GAS)
SP	SPRINKLER PIPING (SPRK.)
DSP	DRY SPRINKLER PIPING
PASP	PRE-ACTION SPRINKLER PIPING
	GATE VALVE
	BUTTERFLY VALVE
	BALL VALVE
	GLOBE VALVE
	TEMPERATURE AND PRESSURE RELIEF VALVE
	GAS COCK / PLUG VALVE
	SOLENOID VALVE
	PRESSURE REGULATION VALVE (PRV)
AQ	AQUASTAT
	CHECK VALVE
	CHECK VALVE WITH AUTOMATIC BALL DRIP
	VALVE IN VERTICAL
R	GAS PRESSURE REGULATOR VALVE
	BALANCING VALVE
	STRAINER WITH BLOW-OFF VALVE
	STRAINER
SA-A	SHOCK ARRESTOR SA-(A)
V	VACCUUM BREAKER
HD	HUB DRAIN
FD	FLOOR DRAIN
FS	FLOOR SINK
	2-WAY CLEANOUT (GRADE) (GCO)
	PRESSURE GAUGE WITH GAUGE COCK
	THERMOMETER WITH SHUT-OFF COCK
	HOSE BIBB (HB) OR WALL HYDRANT (WH)
	YARD HYDRANT
	SLEEVE THRU WALL
	EXPANSION LOOP
FCO GCO	FLOOR CLEANOUT OR GRADE CLEANOUT
RD	ROOF DRAIN
OD	OVERFLOW ROOF DRAIN

SYMBOL	DESCRIPTION
	DOWNSPOUT NOZZLE (18"A.F.F.)
WCO	WALL CLEANOUT
CO CO	CLEANOUT PLUG
OS Y	OS & Y VALVE SUPERVISED (HORIZ. POSITION/VERT. POSITION)
FCA	SPRINKLER SYSTEM FLOOR CONTROL VALVE ASSEMBLY (FCVA)
	DOUBLE CHECK VALVE ASSEMBLY (DCVA) WITH OS & Y VALVES SUPERVISED
FS	FLOW SWITCH
	FIRE HOSE VALVE
	SIAMESE FIRE DEPARTMENT CONNECTION
	DIRECTION OF SLOPE
	DIRECTION OF FLOW
	CAP OUTLET OR PLUGGED OUTLET
	UNION
	CAP SANITARY SEWER OR STORM PIPING

FIRE PROTECTION SYMBOLS

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATICALLY AND MAY NOT BE TO SCALE.

F	FIRE PROTECTION (STANDPIPE, SPRINKLER, SERVICE)
SP	SPRINKLER PIPING (SPRK.)
DSP	DRY SPRINKLER PIPING
PASP	PRE-ACTION SPRINKLER PIPING
FCA	SPRINKLER SYSTEM FLOOR CONTROL VALVE ASSEMBLY (FCVA)
	HOSE VALVE IN CABINET
FS	FLOW SWITCH
TS	TAMPER SWITCH VALVE
	FIRE HOSE VALVE
	SIAMESE FIRE DEPARTMENT CONNECTION (FLUSH MOUNTED)
	SIAMESE FIRE DEPARTMENT CONNECTION (EXPOSED)
	ROOF MANIFOLD
	WET SPRINKLER ALARM VALVE
	DRY SPRINKLER ALARM VALVE
AR	AUTOMATIC SPRINKLER RISER

PLUMBING ABBREVIATIONS

ABV	ABOVE	NC	NORMALLY CLOSED
AFF	ABOVE FINISH FLOOR	OD	OVERFLOW DRAIN
AFG	ABOVE FINISH GRADE	P-COND	PUMPED CONDENSATE
A/C	ABOVE CEILING	PD	PLANTER DRAIN
AP	ACCESS PANEL OR DOOR	PRV	PRESSURE REDUCING VALVE
AC	AIR CHAMBER	PW	PURIFIED WATER
AD	AREA DRAIN	PWC	PURIFIED WATER RECIRC
AW	ACID WASTE	RI & C	ROUGH-IN AND CONNECT
BT	BATHTUB	ROR	REVERSE OSMOSIS RETURN WATER
BFF	BELOW FINISH FLOOR	ROS	REVERSE OSMOSIS SUPPLY WATER
BF	BELOW FLOOR	RPPBP	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER.
BG	BELOW GRADE	SH	SHOWER
BV	AUTOMATIC BALANCING VALVE	SK	SINK
CCP	COIL CONDENSATE PUMP	SMR	SNOW MELT RETURN
CS	CLINICAL SINK	SMS	SNOW MELT SUPPLY
CW	DOMESTIC COLD WATER	S.O.	STORM OVERFLOW
HW	DOMESTIC HOT WATER	SS	SANITARY SEWER
HWRC	DOMESTIC HOT WATER RETURN	SS-x	SERVICE SINK DESIGNATOR WITH NUMBER
DS	DOWNSPOUT	SV	SANITARY VENT
DF	DRINKING FOUNTAIN	TP	TRAP PRIMER
E	EXISTING	TW	TEMPERED WATER
EOSC	EMERGENCY OXYGEN SUPPLY CONNECTION	V	VENT
EWC	ELECTRIC WATER COOLER	VTR	VENT THROUGH ROOF
EWH	ELECTRIC WATER HEATER	W	SANITARY WASTE
FCA	FIRE SPRINKLER CONTROL VALVE ASSEMBLY	WC	WATERCLOSET
FCO	FLOOR CLEANOUT	WCO	WALL CLEANOUT
FD	FLOOR DRAIN	YCO	YARD CLEANOUT
FDC	FIRE DEPARTMENT CONNECTION	COND	CONDENSATE
FDV	FIRE DEPARTMENT VALVE	FOO	FUEL OIL ?
FF	FINISH FLOOR	FOR	FOEL OIL RETURN
FFD	FUNNEL FLOOR DRAIN	FOS	FUEL OIL SUPPLY
FFE	FINISH FLOOR ELEVATION		
FHC	FIRE HOSE CABINET		
FLR	FLOOR		
FRS	FLUSHING RIM SINK		
FS	FIRE SPRINKLER		
GC	GENERAL CONTRACTOR		
GCO	GRADE CLEANOUT		
IE	INVERT ELEVATION		
INV	INVERT		
IW	INDIRECT WASTE PIPING		
LCW	LAB COLD WATER		
LHW/SOLAR	LAB HOT WATER		
LV	LAVATORY		
MH	MANHOLE		
MS	MOPSINK		
NPW	NON-POTABLE/DOWNSTREAM OF A BACKFLOW PREVENTER		

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wgriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
Health ONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN dp LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
WILLIAM SMITH
47964
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.: 14-04

DRAWN BY: LS/SM
CHECKED BY: JG/WS
SCALE:
DATE: 04.15.15
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
PLUMBING LEGENDS, GENERAL NOTES, AND ABBREVIATIONS

SHEET NO.:
P-0.0

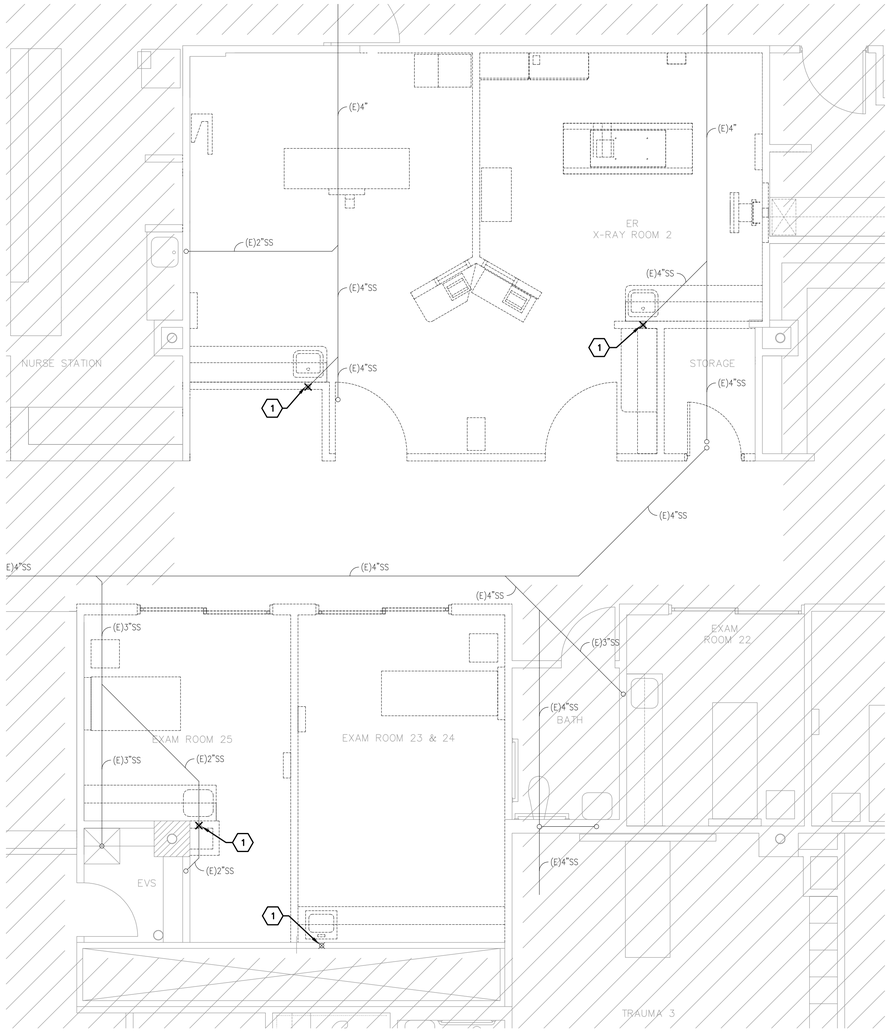
OF

GENERAL NOTES

A. REFER TO SHEET P-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.

LEGEND NOTES

1 DEMO EXISTING SS AND CAP WATER TIGHT.



NORTH

01 UNDERFLOOR PLUMBING DEMOLITION PLAN

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

This sheet of drawings has not been reviewed for code compliance.

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
Health ONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN dp LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
WILLIAM SMITH
47964
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.:	14-04
DRAWN BY:	LS/SM
CHECKED BY:	JG/WS
SCALE:	
DATE:	04.15.15
ISSUED FOR:	CONSTRUCTION
REVISIONS:	

SHEET TITLE:

UNDERFLOOR PLUMBING DEMOLITION PLAN

SHEET NO.:

P-1.0

OF

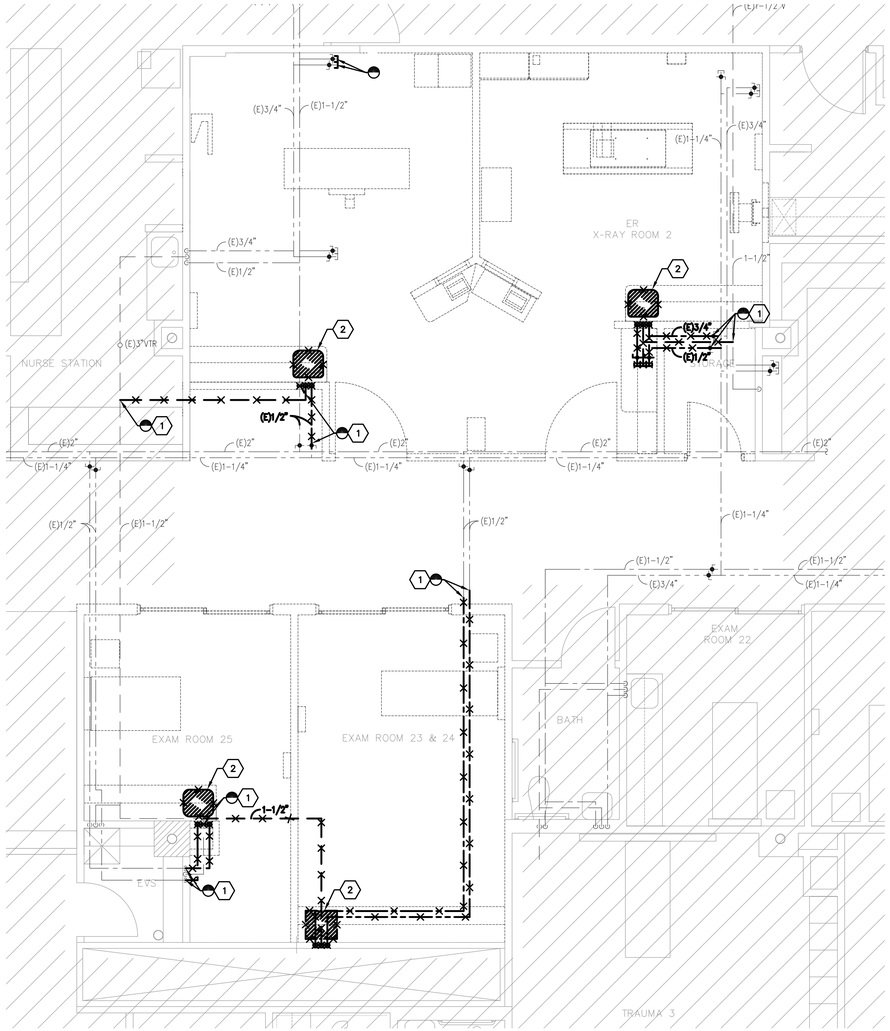
GENERAL NOTES

A. REFER TO SHEET P-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.

LEGEND NOTES

1. DEMO EXISTING CW/HW AND VENT BACK TO MAINS AND CAP AIR AND WATER TIGHT.
2. DEMO EXISTING PLUMBING FIXTURES AND ALL APPURTENANCES

This sheet of drawings has not been reviewed for code compliance.



NORTH

01 PLUMBING DEMOLITION PLAN

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

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
Health ONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
WILLIAM SMITH
47964
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.:	14-04
DRAWN BY:	LS/SM
CHECKED BY:	JG/WS
SCALE:	
DATE:	04.15.15
ISSUED FOR:	CONSTRUCTION
REVISIONS:	

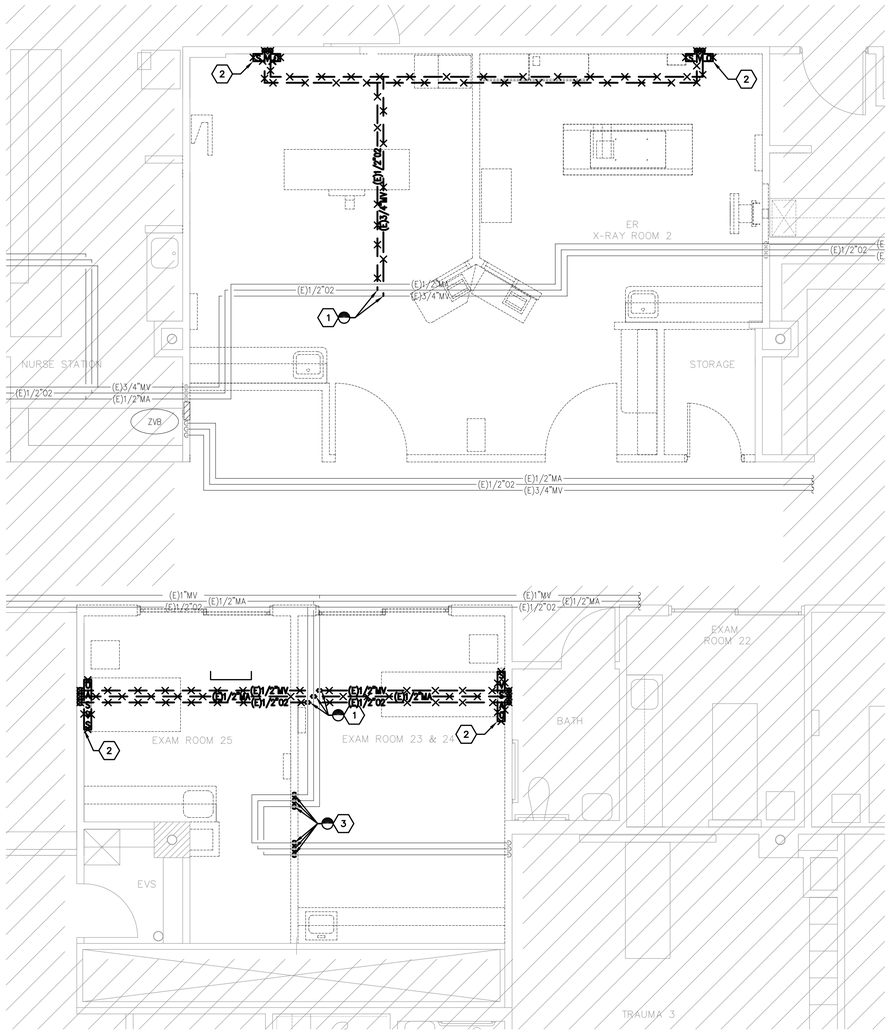
SHEET TITLE:

PLUMBING DEMOLITION PLAN

SHEET NO.:

P-1.1

OF



01 MEDICAL GAS DEMOLITION PLAN

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

GENERAL NOTES

A. REFER TO SHEET P-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.

LEGEND NOTES

1. DEMO EXISTING MED GAS PIPING BACK TO MAINS AND CAP AIR AND WATER TIGHT.
2. DEMO EXISTING MED GAS OUTLES.
3. VERIFY EXISTING MED GAS DROPS. DEMO BACK TO MAINS AND CAP AIR AND WATER TIGHT.

This sheet of drawings has not been reviewed for code compliance.

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
Health ONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:

ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
WILLIAM SMITH
47964
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.:	14-04
DRAWN BY:	LS/SM
CHECKED BY:	JG/WS
SCALE:	
DATE:	04.15.15
ISSUED FOR:	CONSTRUCTION
REVISIONS:	

SHEET TITLE:

MEDICAL GAS DEMOLITION PLAN

SHEET NO.:

P-1.2

OF

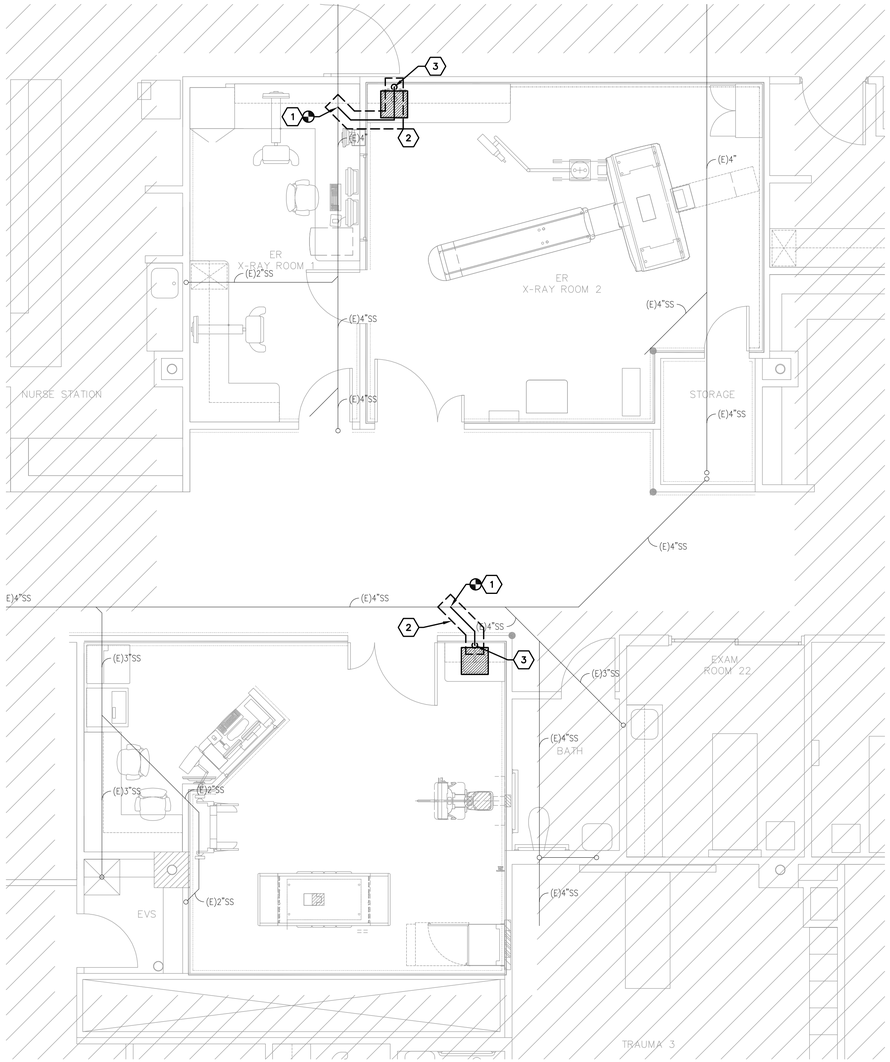
GENERAL NOTES

A. REFER TO SHEET P-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.

B. IN ORDER TO MITIGATE LONG TRENCH LENGTHS, CONTRACTOR SHALL X-RAY SLAB OR USE OTHER MEANS TO DETERMINE THE ACTUAL CONNECTION LOCATION.

LEGEND NOTES

1. CONTRACTOR TO FIELD VERIFY ACTUAL LOCATION OF EXISTING 2"SS AND CONNECT NEW SS PIPING TO EXISTING.
2. PROVIDE TRENCHING AS REQUIRED TO CONNECT NEW SANITARY SEWER TO EXISTING.
3. 2"SS UP



NORTH

01 UNDERFLOOR PLUMBING PLAN
SCALE: 1/4" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: wqriffin
Date: Jul 10, 2015
2009 INTERNATIONAL CODES & 2014 NEC

RSN: 1024436
Permit #: 15-976795 LT

The Medical Center of Aurora
Health ONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN dp LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
WILLIAM SMITH
47964
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.: 14-04

DRAWN BY: LS/SM
CHECKED BY: JG/WS
SCALE:
DATE: 04.15.15
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
UNDERFLOOR PLUMBING PLAN

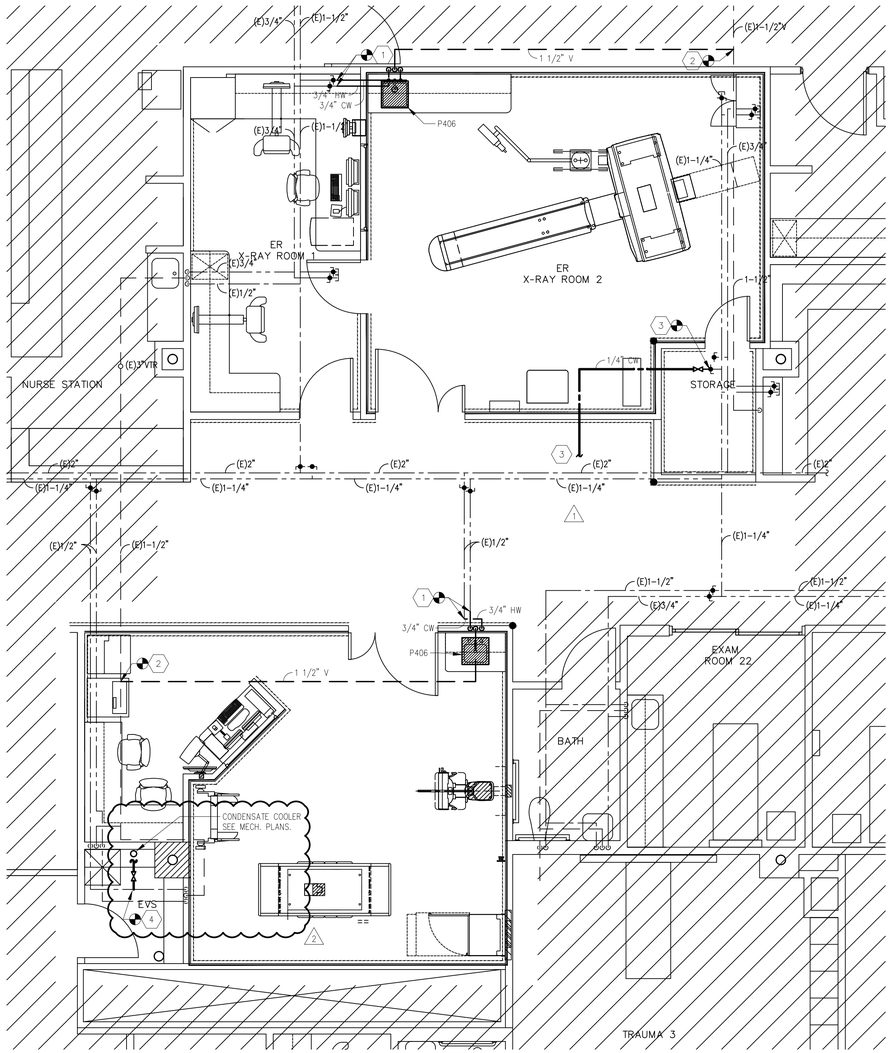
SHEET NO.:
P-2.0
OF

GENERAL NOTES

A. REFER TO SHEET P-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.

LEGEND NOTES

1. CONTRACTOR TO FIELD VERIFY ACTUAL LOCATION OF EXISTING CW/HW AND CONNECT NEW 3/4" CW/HW PIPING TO EXISTING.
2. CONTRACTOR TO FIELD VERIFY ACTUAL LOCATION OF EXISTING VENT AND CONNECT NEW 1 1/2" VENT PIPING TO EXISTING.
3. CONNECT NEW ¾"CW TO EXISTING CW. PROVIDE WATTS MODEL NUMBER 009 BACKFLOW PREVENTER. CONNECT NEW ¾"CW TO FCU-1. REFER TO MECHANICAL DRAWINGS FOR FCU-1 LOCATION. (1)
4. CONNECT NEW 1/2"CW TO EXISTING CW. PROVIDE WATTS MODEL NUMBER 009 BACKFLOW PREVENTER. CONNECT NEW 1/2"CW TO CONDENSATE COOLER. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION. (2)



NORTH

01 PLUMBING PLAN
SCALE: 1/4" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wgriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
Health ONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN dp LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
WILLIAM SMITH
47964
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.:	**14-04**
DRAWN BY:	**LS/SM**
CHECKED BY:	**JG/WS**
SCALE:	
DATE:	**05.19.15**
ISSUED FOR:	**CONSTRUCTION**

REVISIONS:

1 . ADD 02 - 05.26.15
2 . ADD 03 - 05.29.15

SHEET TITLE:

PLUMBING PLAN

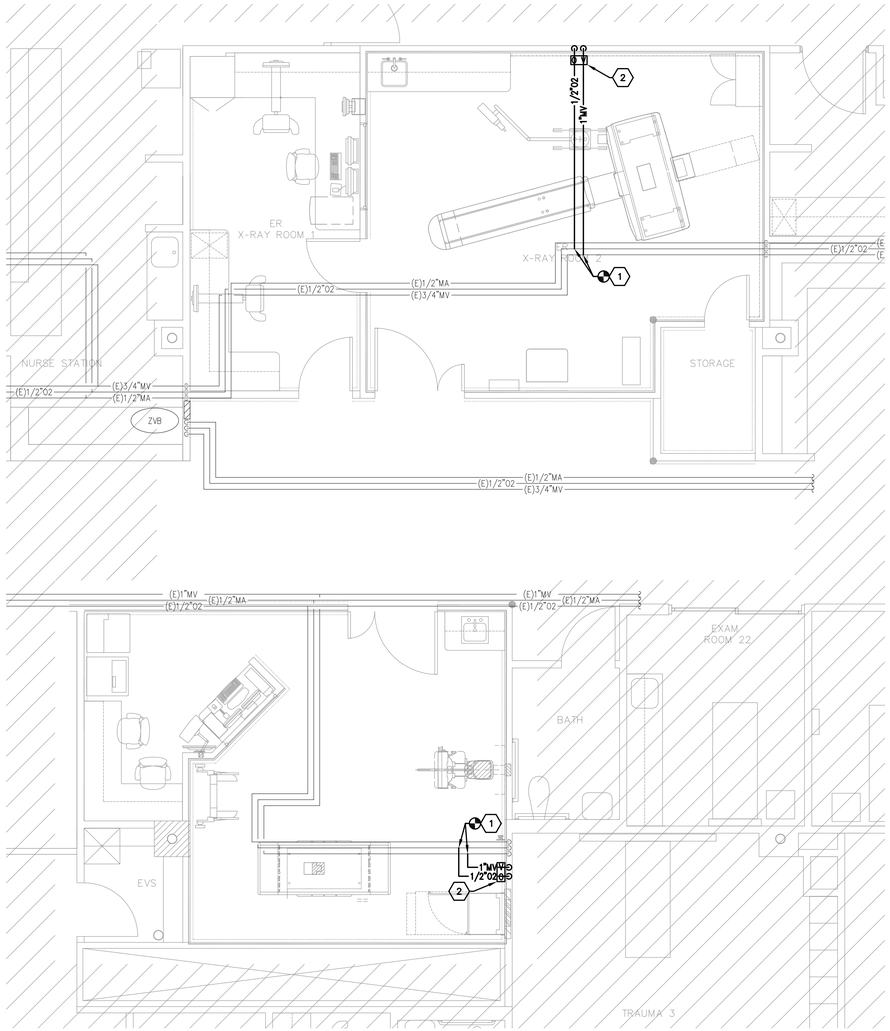
SHEET NO.:

P-2.1

OF

GENERAL NOTES

A. REFER TO SHEET P-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.



LEGEND NOTES

1. VERIFY EXISTING MED GAS LINES AND CONNECT NEW 1" MED VAC AND 1/2" O2 TO EXISTING.
2. COORDINATE EXACT MED GAS OUTLET LOCATION WITH ARCHITECT.

The installation of gas and vacuum systems shall be made by qualified, competent technicians who are experienced in making such installations. NFPA 99

The Installers of medical gas systems shall be qualified under the requirements of ASSE 6010, Professional Qualifications Standard for Medical Gas Sastems Installers. NFPA 99

NORTH

01 MEDICAL GAS PLAN

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

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wgriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
HealthONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN dp LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
WILLIAM SMITH
47964
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.:	14-04
DRAWN BY:	LS/SM
CHECKED BY:	JG/WS
SCALE:	
DATE:	04.15.15
ISSUED FOR:	CONSTRUCTION
REVISIONS:	

SHEET TITLE:

MEDICAL GAS PLAN

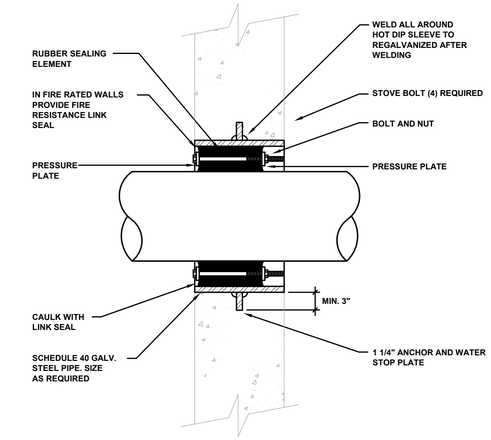
SHEET NO.:

P-2.2

OF

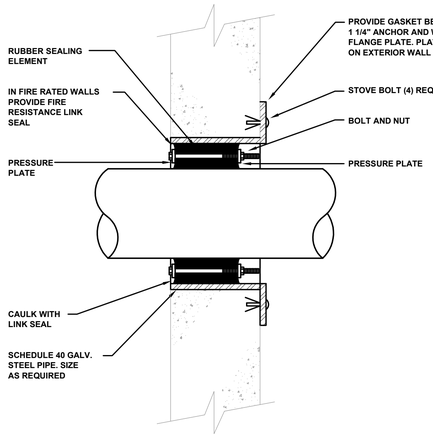
FIXTURE SCHEDULE

DESIG.	HCA DESIG.	FIXTURE TYPE	CONNECTION SIZE				DESCRIPTION
			San. Sewer	Vent	Cold Water	Hot Water	
	P-406	SINK SINGLE COMPARTMENT SENSOR OPERATED ADA COMPLIANT	2"	2"	½"	½"	SINK: THE SINK SHALL BE INCLUDED (INTEGRAL) WITH THE COUNTERTOP AND SHALL BE DRILLED FOR THE PROPER FAUCET INDICATED BELOW FAUCET: ZURN MODEL No. Z6920-XL-J-CP8 ADA COMPLIANT, BATTERY POWERED, CHROME PLATED SENSOR FAUCET. FLOW RATE 1.5 GPM VANDAL RESISTANT LAMINAR FLOW, OCCUPANT DETECTION INFRARED CONVERGENCE-TYPE PROXIMITY SENSOR 30 SECOND TIME OUT FEATURE, SPOUT MODULE CHROME PLATED CAST BRASS, IN-LINE FILTER AND 8" COVER PLATE. MIXING VALVE: WILKINS MODEL No. ZW3870XLTC POINT OF USE THERMOSTATIC MIXING VALVE, ASSE 1070 LISTED. STRAINER/TAILPIECE: ZURN MODEL No. Z8746 CHROME PLATED BRASS STRAINER WITH 1-1/4" 17 GAUGE OFFSET TAILPIECE. P-TRAP: ZURN MODEL No. Z8702-PC CAST BODY ADJUSTABLE P-TRAP WITH 1-1/2" TUBULAR WALL BEND AND FLANGE. STOPS AND RISERS: ZH8824-XL-LR LEAD FREE CHROME PLATED SOLID BRASS HEAVY DUTY ANGLE STOPS WITH ROUND WHEEL HANDLES OR LOOSE KEY, TWO FLEXIBLE CHROME PLATED COPPER LAVATORY RISERS COMPLETE WITH TWO CHROME PLATED STEEL FLANGES.



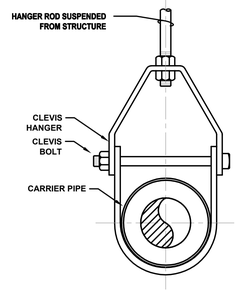
(NON-INSULATED PIPE OR CONDUIT)

03 PIPE SLEEVE THRU NEW WALL
NO SCALE



(NON-INSULATED PIPE OR CONDUIT)

02 PIPE SLEEVE THRU EXISTING WALL
NO SCALE



NOTES:
1. REFER TO SPECIFICATIONS FOR METHODS & MATERIALS.
2. REFER TO SPECIFICATION SECTION 018703 FOR SEISMIC REQUIREMENTS.

01 PIPE HANGER DETAILS
NO SCALE

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wqriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
HealthONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:

ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN dp LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED WILLIAM SMITH 47964 4/15/15 PROFESSIONAL ENGINEER

PROJECT NO.:	14-04
DRAWN BY:	LS/SM
CHECKED BY:	JG/WS
SCALE:	
DATE:	04.15.15
ISSUED FOR:	CONSTRUCTION
REVISIONS:	

SHEET TITLE:

PLUMBING SCHEDULES AND DETAILS

SHEET NO.:

P-3.0

OF

ELECTRICAL ABBREVIATIONS

AAP	AREA ALARM PANEL	MH	MANHOLE
AC	ABOVE FINISHED COUNTER	MLO	MAIN LUGS ONLY
AFF	ABOVE FINISHED FLOOR	MTD	MOUNT OR MOUNTED
ATS	AUTOMATIC TRANSFER SWITCH	N	NEW DEVICE
BFC	BELOW FINISHED CEILING	NC (N.C.)	NORMALLY CLOSED
BOF	BOTTOM OF FIXTURE	NEC	NATIONAL ELECTRIC CODE
C	CONDUIT	NF	NONFUSED
CB,C/B OR CKT BKR	CIRCUIT BREAKER	NIC	NOT IN CONTRACT
CKT	CIRCUIT	NL	NIGHT LIGHT
CCTV	CLOSED CIRCUIT T.V.	NO (N.O.)	NORMALLY OPEN
CLG	CEILING	PB	PULL BOX
CUH	CABINET HEATER	PNL	PANEL
EC	EMPTY CONDUIT	PWR	POWER
ELEC	ELECTRIC	R	REMOVE DEVICES
E	EMERGENCY	RL	RELOCATED DEVICE
EMS	ENERGY MANAGEMENT SYSTEM	RCPT(S) OR RECEPT	RECEPTACLE(S)
EGC	EQUIPMENT GROUNDING CONDUCTOR	RF	RETURN AIR FAN
EWC	ELECTRIC WATER COOLER	SEF	SMOKE EXHAUST FAN
EX	EXISTING	SF	SUPPLY AIR FAN
F	FUSE	SO (S.O.)	SPACE ONLY
FA	FAN COIL UNIT	SP	SPARE
FIXT	FIXTURE	ST (S.T.)	SHUNT TRIP
FLR	FLOOR	SW	SWITCH
FLUOR	FLUORESCENT	TEL	TELEPHONE
FTP, FTS	FAN TERMINAL UNIT	TF	TRANSFER FAN
FTU	FAN TERMINAL UNIT	TP	TAMPER PROOF
FUT	FUTURE	TV	TELEVISION
G, GND	GROUND (EQUIPMENT)	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
GEF	GENERAL EXHAUST FAN	UF	UNDERFLOOR
GEN	GENERATOR	UG	UNDERGROUND
GFCI, GFI	GROUND FAULT CIRCUIT INTERRUPTER	UH	UNIT HEATER
HP	HORSE POWER	UNO (U.N.O.)	UNLESS NOTED OR INDICATED OTHERWISE
HPF	HIGH POWER FACTOR	V	VOLTAGE
HWAT	HEAT TRACE	VFD	VARIABLE FREQUENCY DRIVE
IC	INTERRUPTING CAPACITY	VP	VAPOR PROOF
ICAND	INCANDESCENT	VV	VARIABLE VOLUME UNIT
IG	ISOLATED GROUND	W	WIRE
IR	INFRARED SENSOR	W	WITH
JB	JUNCTION BOX	WG	WIRE GUARD
KEF	KITCHEN EXHAUST FAN	WP	WEATHER PROOF
LTG	LIGHTING	WT	WATER TIGHT
LTS	LIGHTS	XFMR	TRANSFORMER
LV	LOW VOLTAGE	**xx	MOUNTING HEIGHT IN INCHES. AFF UNO.
MATV	MASTER ANTENNA		
MCB	MAIN CIRCUIT BREAKER		
MFR	MANUFACTURER		
MDP	MAIN DISTRIBUTION PANEL		

GENERAL NOTATIONS AND MOUNTING HEIGHTS

NOTE 1: ALL MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE, UNLESS OTHERWISE INDICATED.
A) 48" AFF INDICATES TO TOP OF DEVICE;
B) 15" AFF INDICATES TO BOTTOM OF DEVICE;
C) 60" AFF INDICATES TO BOTTOM OF DEVICE;
D) 80" AFF INDICATES TO BOTTOM OF DEVICE;

NOTE 2: CONFIRM ALL BACKBOX SIZE WITH VENDOR SHOP DRAWINGS PRIOR TO ELECTRICAL ROUGH-IN.

NOTE 3: NOT ALL SYMBOLS SHOWN ON THIS SHEET ARE USED IN THIS PROJECT SCOPE.

(2) - LEGEND NOTES: DENOTES "SEE LEGEND NOTE NO. 2"

02/E7.01 - DENOTES: REFERENCE DETAIL 02 ON DRAWING (SHEET) E7.01

E5.01/02 - DENOTES: REFERENCE ENLARGED DETAIL PLAN 02 ON DRAWING (SHEET) E5.01

$_X$ - CONTROLS ONLY LIGHT FIXTURE WITH MATCHING LOWERCASE LETTER

(ID) - EQUIPMENT (ID) NUMBER FOR FOOD SERVICE EQUIPMENT. REFER TO FOOD SERVICE DOCUMENTS FOR DEFINITION AND REQUIREMENTS.

(OFE) OR (OFE2) - EQUIPMENT (ID) NUMBER FOR OWNER PROVIDED EQUIPMENT. REFER TO OWNER'S EQUIPMENT BOOK / FF&E DOCUMENTS FOR DEFINITION AND REQUIREMENTS.

LIGHTING SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MTG. HT. UNO (SEE NOTE 1)
	2'x4' FLUORESCENT LIGHT FIXTURE ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	2'x4' FLUORESCENT LIGHT FIXTURE ON EMERGENCY CIRCUIT.	SEE FIXTURE SCHEDULE
	2'x4' FLUORESCENT LIGHT FIXTURE WINBOARD LAMPS ON NORMAL CIRCUIT AND OUTBOARD LAMPS ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	2'x4' FLUORESCENT LIGHT FIXTURE WINBOARD LAMPS ON BATTERY BACK-UP BALLAST.	SEE FIXTURE SCHEDULE
	2'x2' FLUORESCENT LIGHT FIXTURE ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	2'x2' FLUORESCENT LIGHT FIXTURE ON EMERGENCY CIRCUIT.	SEE FIXTURE SCHEDULE
	2'x2' FLUORESCENT LIGHT FIXTURE WINBOARD LAMPS ON NORMAL CIRCUIT AND OUTBOARD LAMPS ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	2'x2' FLUORESCENT LIGHT FIXTURE WINBOARD LAMPS ON BATTERY BACK-UP BALLAST.	SEE FIXTURE SCHEDULE
	WALL MOUNTED FIXTURE ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	WALL MOUNTED FIXTURE WITH BATTERY BACK-UP BALLAST.	SEE FIXTURE SCHEDULE
	RECESSED/SURFACE MOUNTED LINEAR FIXTURE ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	RECESSED/SURFACE MOUNTED LINEAR FIXTURE WITH BATTERY BACK-UP BALLAST.	SEE FIXTURE SCHEDULE
	SURFACE MOUNT / CHAIN HUNG INDUSTRIAL STRIP FIXTURE.	SEE FIXTURE SCHEDULE
	RECESSED/SUSPENDED DOWNLIGHT FIXTURE ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	RECESSED/SUSPENDED DOWNLIGHT FIXTURE WITH BATTERY BACK-UP BALLAST.	SEE FIXTURE SCHEDULE
	RECESSED DOWNLIGHT FIXTURE WITH WALL WASH TRIM ON NORMAL CIRCUIT.	SEE FIXTURE SCHEDULE
	RECESSED DOWNLIGHT FIXTURE WITH WALL WASH TRIM AND BATTERY BACK-UP BALLAST.	SEE FIXTURE SCHEDULE
	CEILING MOUNTED EXIT SIGN. SHADING INDICATES DOUBLE OR SINGAL FACE. ARROW INDICATE CHEVRON DIRECTIONS.	SEE FIXTURE SCHEDULE
	END MOUNTED EXIT SIGN. SHADING INDICATES DOUBLE OR SINGAL FACE. ARROW INDICATE CHEVRON DIRECTIONS.	SEE FIXTURE SCHEDULE
	WALL MOUNTED EXIT SIGN. SHADING INDICATES DOUBLE OR SINGAL FACE. ARROW INDICATE CHEVRON DIRECTIONS.	SEE FIXTURE SCHEDULE
$	WALL SWITCH SPST, 20A, 120/277V	48" AFF
$_2$	DOUBLE POLE TOGGLE SWITCH, 20A/208/480V	48" AFF
$_3$	3-WAY WALL SWITCH, 20A, 120/277V	48" AFF
$_T$	WALL SWITCH WITH ADJUSTABLE COUNTDOWN TIMER	48" AFF
$_{3D}$	3-WAY WALL DIMMER SWITCH, 20A, 120/277V	48" AFF
$_D$	WALL DIMMER SWITCH, 20A, 120/277V	48" AFF
$_{LV}$	LOW VOLTAGE WALL SWITCH	48" AFF

WIRING DEVICE SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MTG. HT. UNO (SEE NOTE 1)
	DUPLEX RECEPTACLE - 20A/125V/2P/3W/G NEMA 5-20R	18" AFF
GFI	DUPLEX RCPT. GFCI - 20A/125V/2P/3W/G NEMA 5-20R	18" AFF
	QUADRAPLEX RECEPTACLE (TWO DUPLEX RCPTS. UNDER ONE COVERPLATE)	18" AFF
	SPECIAL PURPOSE RECEPTACLE (NEMA NO. AS INDICATED)	18" AFF
	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER	8" AFC OR 42" AFF
	QUADRAPLEX RECEPTACLE (TWO DUPLEX RCPTS. UNDER ONE COVERPLATE) MOUNTED ABOVE COUNTER	8" AFC OR 42" AFF
E	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER ON EMERGENCY CIRCUIT	8" AFC OR 42" AFF
E	QUADRAPLEX RECEPTACLE (TWO DUPLEX RCPTS. UNDER ONE COVERPLATE) MOUNTED ABOVE COUNTER ON EMERG. CIRC.	8" AFC OR 42" AFF
(2)	JUNCTION BOX - SIZE & MOUNTING AS REQUIRED	AS REQUIRED
30/3/3	DISCONNECT SWITCH - 30/3/3 INDICATES 30A, 30AMP FUSED, 3-POLE.	AS REQUIRED
30/-/3	DISCONNECT SWITCH - 30/-/3 INDICATES 30A, NONFUSED, 3-POLE.	AS REQUIRED
CB 30/3	CIRCUIT BREAKER DISCONNECT SWITCH - THERMAL MAGNETIC CB IN NEMA 1 ENCLOSURE; AMPS/POLES AS INDICATED	AS REQUIRED
CB	COMBINATION MOTOR CONTROLLER/DISCONNECT SWITCH	AS REQUIRED
	208/120V OR 480/277V PANELBOARD	-
	DISTRUBUTION PANELBOARD	-
	CIRCUIT HOMERUN TO PANELBOARD (2 #12, 1#12G, 3/4"C. 20A/1P CB UNO)	-
	CONDUIT INSTALLED IN CEILING SPACE OF FLOOR BELOW.	-
X,X,X	THREE SINGLE POLE DEVICE CIRCUIT NUMBERS	-
X/XX	MULTI-POLE DEVICE CIRCUIT NUMBERS	-
EPO	EMERGENCY POWER OFF BUTTON. WALL MOUNTED - REFER TO VENDOR DRAWINGS FOR ADDITIONAL REQUIREMENTS	AS REQUIRED

COMMUNICATIONS SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MTG. HT. UNO (SEE NOTE 1)
	TELEPHONE OUTLET. WALL MOUNTED - STUB 3/4" C. ABOVE ACCESSIBLE CEILING FROM OUTLET BOX	15" AFF
W	TELEFONE OUTLET. WALL MOUNTED - STUB 3/4" C. ABOVE ACCESSIBLE CEILING FROM OUTLET BOX	48" AFF
	TELEPHONE AND DATA OUTLET - STUB 3/4" C. ABOVE ACCESSIBLE CEILING FROM OUTLET BOX	15" AFF
	DATA OUTLET. WALL MOUNTED - STUB 3/4" C. ABOVE CEILING FROM OUTLET BOX	15" AFF
AC	DATA OUTLET. WALL MOUNTED ABOVE COUNTER- STUB 3/4" C. ABOVE CEILING FROM OUTLET BOX	8" AFC OR 42" AFF
F	FIRE ALARM AUDIBLE VISUAL SIGNAL	80" AFF
F	FIRE ALARM AUDIBLE SIGNAL	80" AFF
F	FIRE ALARM VISUAL SIGNAL	80" AFF
D	SMOKE DETECTOR CEILING OR WALL MOUNTED	-

PROJECT DESIGN CRITERIA

LOCATION:	
CITY/STATE	AURORA, CO
APPLICABLE CODES:	
BUILDING	2009 IBC
MECHANICAL	2009 IMC
PLUMBING	2009 IPC
ENERGY	2009 IECC
ELECTRICAL	2014 ~~2011~~ NEC
LATITUDE:	
DEG. N. LAT.	39°41' N
ELEVATION:	
FT. ABOVE SEA LEVEL	5471

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation. **2009 IBC 105.4**

Failure to follow the approved plans may result in an hourly to review the field changes for code compliance.

ELECTRICAL SPECIFICATIONS

I GENERAL CONDITIONS

A. THE SCOPE OF THE WORK SHALL INCLUDE THE FURNISHING AND INSTALLATION OF THE NECESSARY MATERIAL AND LABOR TO ACCOMPLISH THE WORK INDICATED BY THE DRAWINGS AND HEREIN SPECIFIED. ALL WORK BY THIS CONTRACTOR SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING CODES.

B. THE CONTRACT DOCUMENTS DO NOT PROPOSE TO SHOW ALL EXISTING SYSTEMS, EQUIPMENT OR MATERIAL. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE EXISTING CONDITIONS AT THE JOB SITE BEFORE SUBMITTING PROPOSALS. SUBMISSION OF PROPOSALS SHALL BE TAKEN AS EVIDENCE THAT SUCH INSPECTION HAS TAKEN PLACE. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE COMPLETE SET OF CONSTRUCTION DOCUMENTS, AND THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.

C. MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE NEW AND SHALL BEAR THE U.L. LABEL WHERE APPLICABLE, UNLESS NOTED OTHERWISE. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR AFTER COMPLETION AND ACCEPTANCE BY THE OWNER.

D. CONTRACTOR SHALL INSTALL ELECTRICAL SYSTEMS WITHOUT INTERFERENCE AND IN STRICT COORDINATION WITH OTHER TRADES.

E. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS. IN CASE OF DIFFERENCE BETWEEN APPLICABLE CODES AND STANDARDS AND THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF SUCH DIFFERENCE. SHOULD THE CONTRACTOR PERFORM ANY WORK THAT DOES NOT COMPLY WITH THE REQUIREMENTS OF APPLICABLE CODES AND STANDARDS, HE SHALL BEAR ALL COSTS ARISING IN CORRECTING SUCH DEFECTS. APPLICABLE CODES AND STANDARDS SHALL INCLUDE ALL ORDINANCES, UTILITY COMPANY REGULATIONS, AND APPLICABLE REQUIREMENTS OF NATIONALLY ACCEPTED CODES AND STANDARDS. SHOULD THE CONTRACTOR SUPPLY EQUIPMENT DIFFERING FROM THE SPECIFIED ITEMS IN THE CONTRACT DOCUMENTS WITHOUT NOTIFICATION TO THE ENGINEER, HE SHALL BEAR ALL COSTS TO UPGRADE DEFICIENCIES ARISING FROM SUCH.

F. WHERE ONLY ONE MANUFACTURER'S NAME IS LISTED IN THE EQUIPMENT SPECIFICATION, OTHER MANUFACTURERS OF SIMILAR CHARACTERISTICS AND OF EQUAL OR BETTER PERFORMANCE CAPACITIES MAY BE CONSIDERED FOR "OR EQUAL" ACCEPTANCE BY THE ENGINEER. SUBSTITUTION REQUESTS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL. WHERE MORE THAN ONE MANUFACTURER IS LISTED IN THE NOTES AND EQUIPMENT SPECIFICATIONS, ONLY THOSE NAMED MANUFACTURERS WILL BE CONSIDERED FOR ACCEPTANCE. SHOULD A SUBSTITUTION BE ACCEPTED, AND SHOULD THE SUBSTITUTE MATERIAL PROVE DEFECTIVE, OR OTHERWISE UNSATISFACTORY FOR THE SERVICE INTENDED WITHIN THE GUARANTEE PERIOD, THIS MATERIAL OR EQUIPMENT SHALL BE REPLACED WITH THE MATERIAL OR EQUIPMENT SPECIFIED AT NO COST TO THE OWNER.

G. PROVIDE ACCESS, INCLUDING NECESSARY ACCESS DOORS, FOR NEW AND EXISTING EQUIPMENT REQUIRING OPERATION AND/OR MAINTENANCE. RELOCATE EXISTING AND LOCATE ALL NEW EQUIPMENT SUCH THAT OPERATION OR MAINTENANCE IS NOT RESTRICTED.

H. INSTALL EQUIPMENT WITH WORKING CLEARANCES COMPLYING WITH NEC 110-16 AND 110-34.

II PRODUCTS

A. CONDUIT

1. ELECTRIC METALLIC TUBING (EMT): OF HIGH GRADE STEEL MANUFACTURED SPECIFICALLY TO STANDARDS ASSURING MAXIMUM WELDING CHARACTERISTICS AND DUCTILITY, AND SHALL CONFORM TO FED. SPEC. WW-C-563b.
2. FLEXIBLE METAL CONDUIT: MANUFACTURED OF MILD STEEL STRIP MATERIAL HAVING A HOT-DIP GALVANIZED COATING AND MEETING REQUIREMENTS OF FED. SPEC. WW-C-566b.
3. LIQUIDTIGHT FLEXIBLE CONDUIT: FLEXIBLE METAL CONDUIT AS SPECIFIED HEREIN WITH A COPPER GROUNDING STRAND AND FACTORY-APPLIED NEOPRENE JACKET. LIQUID TIGHT FLEXIBLE CONDUIT SHALL BE UL LISTED, EQUIVALENT TO ANACONDA "SEALTITE", TYPE UA.

B. COUPLINGS AND TERMINATORS

1. FOR ELECTRIC METALLIC TUBING: STEEL SET SCREW BOX CONNECTORS WITH NYLON INSULATED THROAT AND LOCKNUTS AT ALL BOXES AND CABINET TERMINATIONS OR NON-INSULATED BOX CONNECTOR, LOCKNUT AND NYLON-INSULATED GROUNDING BUSHING ON ALL TUBING WHERE GROUNDING BUSHINGS ARE REQUIRED.
2. FOR FLEXIBLE METAL CONDUIT: COUPLINGS AT CONNECTIONS BETWEEN FLEXIBLE CONDUIT AND EMT, AND NYLON INSULATED THROAT STEEL CONNECTORS AT BOX OR CABINET TERMINATIONS.

C. JUNCTION AND PULL BOXES

1. SIZE BOXES IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEC. BOXES SHALL BE NO SMALLER THAN 4 INCHES SQUARE BY 1-1/2 INCHES DEEP WITH COVERS ACCESSIBLE AT ALL TIMES. SET BOXES ON CONCEALED CONDUITS WITH COVERS FLUSH WITH THE FINISHED WALL OR CEILING LINE. PROVIDE JUNCTION AND PULL BOXES OF APPROPRIATE DIMENSIONS FOR CONDUITS AND CONDUCTORS NOTED, WHERE SHOWN AND WHERE NECESSARY FOR THE INSTALLATION AND PULLING OF CABLES AND WIRES. INSTALL COVERS ON JUNCTION BOXES AND CONDULETS AFTER WIRING AND CONNECTIONS ARE COMPLETED.

D. OUTLET BOXES

1. OUTLET BOXES SHALL BE UL LISTED, AND OF SIZES AND TYPES REQUIRED FOR THE APPLICATION. OUTLET BOXES SHALL BE SHEET STEEL, NO LIGHTER THAN 14 GAUGE, GALVANIZED AFTER FABRICATION. SET BOX SO FACE OF BOX WILL FINISH FLUSH WITH BUILDING SURFACE.
   a. FOR LIGHTING FIXTURE OUTLETS: 4 INCH SQUARE BY 1-1/2 INCHES DEEP WITH RAISED FIXTURE RING.
   b. FOR WALL SWITCHES, RECEPTACLES, AND COMMUNICATION USE: 4 INCH SQUARE, BY 1-1/2 INCHES DEEP. USE BOXES WITH PLASTER RINGS IN ALL PLASTERED WALLS WHERE WALL THICKNESS PERMITS. USE BOXES LESS THAN 1-1/2 INCH DEEP ONLY IN LOCATIONS WHERE DEEP BOXES CANNOT BE ACCOMMODATED BY CONSTRUCTION.

E. PULL CORDS

1. PROVIDE A NYLON POLYETHYLENE CORD, WITH A TENSILE STRENGTH OF NOT LESS THAN 200 POUNDS, IN EACH EMPTY CONDUIT TO FACILITATE THE FUTURE INSTALLATION OF CONDUCTORS. INCORPORATE PLASTIC TAGS FOR IDENTIFICATION.

F. CONDUCTORS

1. CONDUCTORS SHALL BE 98% CONDUCTIVITY SOFT DRAWN ANNEALED COPPER, 600 VOLT, THHN/THWN INSULATION, #10 AND SMALLER - SOLID, #8 AND LARGER - STRANDED.
2. NO CONDUCTORS SHALL BE SMALLER THAN NO. 12, EXCEPT FOR SIGNAL OR CONTROL CIRCUITS AND FOR INDIVIDUAL LIGHTING FIXTURE TAPS AS PERMITTED BY NEC.
3. FOR HOME RUNS ON 120-VOLT, 20-AMPERE BRANCH CIRCUITS, WHERE LENGTH OF RUN FROM PANELBOARD TO FIRST OUTLET EXCEEDS 100 LINEAR FEET, USE NO. 10 CONDUCTORS. WHERE LENGTH OF RUN IS 100 LINEAR FEET OR LESS, USE NO. 12 CONDUCTORS.
4. FOR HOME RUNS ON 277-VOLT, 20-AMPERE BRANCH CIRCUITS, WHERE LENGTH OF RUN FROM PANELBOARD TO FIRST OUTLET EXCEEDS 200 LINEAR FEET, USE NO. 10 CONDUCTORS. WHERE LENGTH OF RUN IS 100 LINEAR FEET OR LESS, USE NO. 12 CONDUCTORS.

G. WIRING DEVICES, COVER PLATES AND ACCESSORIES

1. PROVIDE WIRING DEVICES AND ASSOCIATED ACCESSORIES OF HOSPITAL GRADE. DEVICES OF LEVITON, HUBBELL OR PASS & SEYMORE ARE ACCEPTABLE. SUBMIT FOR REVIEW A COMPLETE LIST OF ANY SUBSTITUTES OFFERED FROM THOSE SPECIFIED.
2. COLOR OF WALL SWITCHES, RECEPTACLES AND FACEPLATES: AS SPECIFIED OR SELECTED BY ARCHITECT.
3. WHERE LIGHTING CIRCUITS ARE SHOWN TO BE LINE VOLTAGE SWITCHED, PROVIDE WITH SPECIFICATION GRADE, HORSEPOWER RATED, UL LISTED, BACK- AND SIDE-WIRED, TOGGLE SWITCHES RATED 20-AMP, 120 VOLTS AC 277 VOLTS. SWITCHES SHALL BE SPST, DPST, 3-WAY OR 4-WAY, WITH OR WITHOUT PILOT LIGHT, AS INDICATED ON THE DRAWINGS.
4. RECEPTACLES
   a. STANDARD WALL RECEPTACLES SHALL BE HOSPITAL GRADE, RATED 20-AMP, 120-VOLT, 2 POLE, 3-WIRE, GROUNDING TYPE, SIDE-WIRED, NEMA 5-20R.
   b. GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLES SHALL BE 20 AMP, 120 VOLT, 2 POLE, 3-WIRE, NEMA 5-20R.
5. MAINTAIN GROUNDING CONTINUITY BETWEEN DEVICES AND METALLIC RACEWAY SYSTEM IN ADDITION TO PROVIDING A GREEN EQUIPMENT GROUNDING CONDUCTOR RUN WITH ALL CIRCUIT CONDUCTORS AS INDICATED ON THE DRAWINGS, EXCEPT CARE SHALL BE TAKEN WHEN INSTALLING RECEPTACLES HAVING ISOLATED GROUND POLE SO AS TO NOT BOND THE EQUIPMENT GROUND CONDUCTOR TO THE CONDUIT SYSTEM.

H. GROUNDING

1. GROUNDING SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
2. GROUNDING CONDUCTORS SHALL BE ANNEALED COPPER CABLES OF THE SIZES INDICATED OR REQUIRED.
3. A "GREEN WIRE" EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITHIN EACH FEEDER AND BRANCH CIRCUIT RACEWAY, WHETHER METALLIC OR NON-METALLIC, TO FORM A COMPLETE AND CONTINUOUS GROUNDING PATH. CONNECT GROUNDING CONDUCTORS TO GROUND TERMINALS AT EACH END OF THE RUN.

I. LIGHTING FIXTURES

1. INSURE EACH LIGHTING FIXTURE HAS AN OPERATING SET OF LAMPS EQUAL TO EXISTING OR OF THE TYPES SHOWN ON THE DRAWINGS AND/OR SPECIFIED HEREIN. LAMPS SHALL BE MANUFACTURED BY GENERAL ELECTRIC, PHILIPS, OR OSRAM/SYLVANIA, EXCEPT WHERE SCHEDULED OTHERWISE.
2. FLUORESCENT LAMPS: IN GENERAL, 48-INCH LENGTH, T-8, RAPID START, ENERGY-SAVING LAMPS; LAMP COLOR AS INDICATED.
3. FLUORESCENT BALLASTS: IN GENERAL, ELECTRONIC TYPE FOR BOTH STANDARD FLUORESCENT AND COMPACT FLUORESCENT; INPUT POWER FACTOR ABOVE 95%, THD LESS THAN 20%; AS MANUFACTURED BY MOTOROLA, ADVANCE OR MAGNETEK.
4. PROVIDE A LIGHTING FIXTURE COMPLETE WITH LAMPS, BALLASTS, AND OTHER REQUIRED APPURTENANCES FOR EACH LIGHTING OUTLET SHOWN ON THE DRAWINGS. LIGHT FIXTURES SHALL BE AS DESCRIBED IN THE "LIGHTING FIXTURE SCHEDULE". EACH UNIT SHALL BE FURNISHED WITH ALL MOUNTING AND TRIM ACCESSORIES TO SUIT THE SPECIFIC SERVICES APPLIED. FINISHES SHALL BE FACTORY-STANDARD, EXCEPT WHERE SCHEDULED OTHERWISE.
5. PROVIDE LIGHTING FIXTURES IN ACCORDANCE WITH THE DESIGNATIONS AND DESCRIPTIONS ON THE DRAWINGS. WHERE A SINGLE MANUFACTURER AND ASSOCIATED CATALOG NUMBER IS SCHEDULED, IT IS TO ESTABLISH A DESIRED TYPE AND STANDARD OF QUALITY.
6. LIGHTING FIXTURES SHALL BE UL LABELED.

J. FIRE ALARM SYSTEM

1. FURNISH AND INSTALL FIRE ALARM AND DETECTION SYSTEM ADDITIONS AND RELOCATIONS AS INDICATED ON THE DRAWINGS, COMPATIBLE AND CONSISTENT WITH THE EXISTING SYSTEM.
2. THE EXISTING SYSTEM OPERATION SHALL REMAIN UNCHANGED PROVIDING CONTINUAL SERVICE DURING ALL PHASES OF THE RENOVATION AND EXPANSION.

K. TELEPHONE/DATA SYSTEM

1. AT ALL WALL DATA/VOICE OUTLET LOCATIONS, PROVIDE BACK BOXES AND 3/4" EMPTY CONDUIT WITH PULL CORD TO ABOVE CEILING.

III EXECUTION

A. INSTALLATION OF BUILDING CONDUIT

1. ALL INTERIOR RACEWAYS SHALL BE EMT.
2. CONDUITS SHALL BE OF SUCH SIZE AND SO INSTALLED THAT THE CONDUCTORS MAY BE DRAWN THROUGH WITHOUT INJURY OR EXCESSIVE STRAIN. SHALL BE SECURED AT CABINETS AND BOXES WITH GALVANIZED LOCKNUTS, BOTH INSIDE AND OUTSIDE, AND SHALL HAVE APPROPRIATE BUSHINGS INSIDE. BUSHINGS SHALL BE INSULATING TYPE WITH BOND GROUND CLAMPS.
3. USE LENGTHS OF FLEXIBLE METAL CONDUIT NOT LESS THAN 12 INCHES LONG AT FINAL CONNECTIONS TO ALL MOTORS, TRANSFORMERS AND SIMILAR DEVICES SUBJECT TO MOVEMENT BECAUSE OF VIBRATION OR MECHANICAL ADJUSTMENT. USE FLEXIBLE METAL CONDUITS TO EFFECT FINAL CONNECTIONS TO RECESSED LIGHTING FIXTURES. USE LIQUID TIGHT FLEXIBLE METAL CONDUIT, WITH APPROPRIATE CONNECTIONS, IN DAMP OR WET LOCATIONS, AT MOTOR OR EQUIPMENT LOCATIONS IN MECHANICAL EQUIPMENT ROOMS, AT OR NEAR PUMPS, AND WHEN INSTALLED OUTDOORS.
4. GROUND METALLIC CONDUITS AS REQUIRED BY NEC.
5. INSTALL RACEWAYS CONTINUOUS FROM OUTLET TO OUTLET BOX, OR CABINET, WITH A MAXIMUM OF 150 FEET BETWEEN PULLS. IN AREAS WHERE THERE ARE NO SUSPENDED CEILINGS, RUN ALL CONDUITS PARALLEL/PERPENDICULAR TO BUILDING SURFACE PLANES.
6. IN SYSTEMS OPERATING AT MORE THAN 300 VOLTS BETWEEN PHASE CONDUCTORS, AND WHERE DIFFERENT PHASE CONDUCTORS ARE TO BE RUN TO A COMMON GANG WALL SWITCH BOX, PROVIDE SUBSTANTIAL BARRIERS BETWEEN ADJACENT SWITCHES IN THE BOX SO THAT TWO DIFFERENT PHASE WIRES WILL NOT BE IN THE SAME COMPARTMENT.
7. WHEREVER RACEWAYS PASS THROUGH FLOORS, WALLS, PENETRATIONS, OR OTHER PARTITIONS, CAREFULLY FILL ANY SPACE BETWEEN THE OUTSIDE OF THE RACEWAY AND THE BUILDING MATERIAL TO PREVENT PASSAGE OF AIR, WATER, SMOKE, AND FUMES. FILLING MATERIAL SHALL BE A UL LISTED, INTUMESCENT SEALING MATERIAL HAVING FIRE/SMOKE RESISTIVE RATING EQUAL TO THE BUILDING MATERIAL PENETRATED.
8. CONDUITS UTILIZED THROUGHOUT THE PROJECT SHALL NOT BE SMALLER THAN 3/4 INCH FOR FEEDERS. MULTIPLE BRANCH CIRCUIT HOMERUNS AND HOMERUNS OF CONDUCTORS LARGER THAN NO. 12. INDIVIDUAL BRANCH CIRCUIT WIRING FOR NO. 12 CONDUCTORS SHALL BE ACCEPTABLE IN 1/2" CONDUIT, I.E. 2#12, 1#12G, 1/2"C.

B. INSTALLATION OF PULL AND JUNCTION BOXES

1. FASTEN ALL BOXES SECURELY TO THE BUILDING CONSTRUCTION, INDEPENDENT OF CONDUIT SYSTEMS.
2. ON CONCEALED CONDUIT SYSTEMS WHERE BOXES ARE NOT OTHERWISE ACCESSIBLE, SET BOXES FLUSH WITH FINISHED SURFACES FOR ACCESS, AND PROVIDE OVERLAPPING COVERS.

C. INSTALLATION OF OUTLET BOXES

1. TERMINATE CONDUITS AT A METAL OUTLET BOX AT EACH OUTLET OR DEVICE. ALL BOXES SHALL CONFORM TO THE NEC.
2. OUTLET BOXES SHALL BE SUPPORTED INDEPENDENT OF THE CONDUIT SYSTEM.

D. INSTALLATION OF CONDUIT HANGERS AND SUPPORTS

1. FURNISH AND INSTALL ALL HANGERS AND SUPPORTS REQUIRED BY RACEWAY SYSTEMS.
2. SUPPORT ALL ABOVE-GROUND ELECTRICAL CONDUITS FROM THE BUILDING STRUCTURE/CONSTRUCTION. SUPPORT CONDUITS RUNNING VERTICALLY OR HORIZONTALLY ALONG WALLS WITH GALVANIZED MALLEABLE IRON ONE-HOLE CLAMPS. CARRY INDIVIDUALLY SUPPORTED HORIZONTAL CONDUITS 1-1/4 INCH AND LARGER ON SUITABLE HANGERS.
3. LOCATE HANGERS AND TRAPEZES TO SUPPORT HORIZONTAL RACEWAYS WITHOUT APPRECIABLE SAGGING. HANGER SPACING SHALL NOT EXCEED NEC REQUIREMENTS, OR RECOMMENDATIONS OF THE NECA "STANDARD OF INSTALLATION".
4. WHERE CONDUITS SMALLER THAN 1-1/4 INCH ARE INSTALLED ABOVE REMOVABLE TYPE DRY CEILINGS, SUPPORT THEM ON SUITABLE HANGER RODS WITH METAL CLIPS AT A DISTANCE ABOVE THE CEILING SUFFICIENT TO PERMIT REMOVAL OF CEILING PANELS AND LAY-IN LIGHT FIXTURES. LOCATE SUCH CONDUITS SO AS NOT TO HINDER ACCESS TO MECHANICAL EQUIPMENT THROUGH CEILING PANELS.

E. INSTALLATION OF CONDUCTORS

1. PULL NO CONDUCTORS INTO CONDUITS UNTIL ALL WORK OF A NATURE WHICH MAY CAUSE INJURY TO CONDUCTORS IS COMPLETED.
2. RUN FEEDERS IN CONTINUOUS PIECES, WITHOUT JOINTS OR SPLICES, INSOFAR AS PRACTICABLE.
3. RUN CONDUITS FOR EMERGENCY POWER CONDUCTORS SEPARATE FROM ALL OTHER WIRING.

F. SEGREGATION OF WIRING SYSTEMS

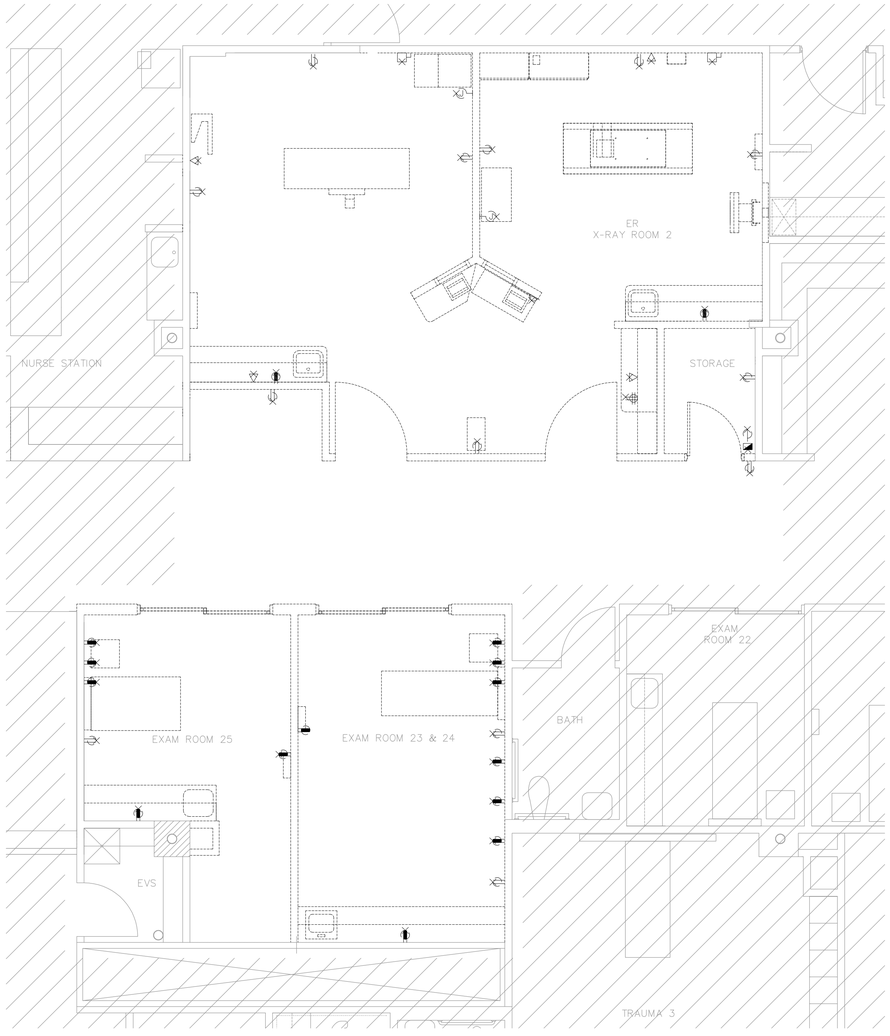
1. SEGREGATION OF WIRING SYSTEMS SHALL NOT BE COMPROMISED BY THE USE OF COMMON PULLBOXES, WIREWAYS, CABINETS OR ANY OTHER TYPE OF ENCLOSURE.
2. THE RACEWAY SYSTEM FOR EACH FEEDER SHALL BE A SEPARATE SYSTEM COMPLETELY FAULT ISOLATED FROM ALL OTHER RACEWAY SYSTEMS.
3. THE RACEWAY SYSTEM FOR THE BRANCH CIRCUITS OF EACH PANELBOARD SHALL BE A SEPARATE SYSTEM COMPLETELY FAULT ISOLATED FROM ALL OTHER RACEWAY SYSTEMS.

G. EQUIPMENT CONNECTIONS AND CONTROL WIRING

1. THE FURNISHING AND INSTALLATION OF CONTROL POWER WIRING REQUIRED FOR EQUIPMENT FURNISHED UNDER DIVISION 23 AND NOT SHOWN ON THE ELECTRICAL DRAWINGS SHALL BE FURNISHED UNDER DIVISION 23. CONTROL POWER WIRING

GENERAL NOTES

A. REFER TO SHEET E-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.
B. EXISTING DEVICES TO BE DEMOLISHED SHALL BE COMPLETELY REMOVED PER DEMOLITION SPECIFICATIONS. EXISTING RACEWAY CONCEALED WITHIN EXISTING PARTITIONS OR INACCESSIBLE CEILINGS SHALL BE REMOVED UNLESS DIRECTED OTHERWISE BY OWNER. CUT AND PATCH EXISTING PARTITIONS/CEILINGS TO REMOVE RACEWAY.



NORTH

01 POWER & SPECIAL SYSTEMS DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wgriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
Health ONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:

ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN dp LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
JONATHAN M. GRAHN
48502
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.:	14-04
DRAWN BY:	DG/LS
CHECKED BY:	JG
SCALE:	
DATE:	04.15.15
ISSUED FOR:	CONSTRUCTION
REVISIONS:	

SHEET TITLE:

POWER & SPECIAL SYSTEMS DEMOLITION PLAN

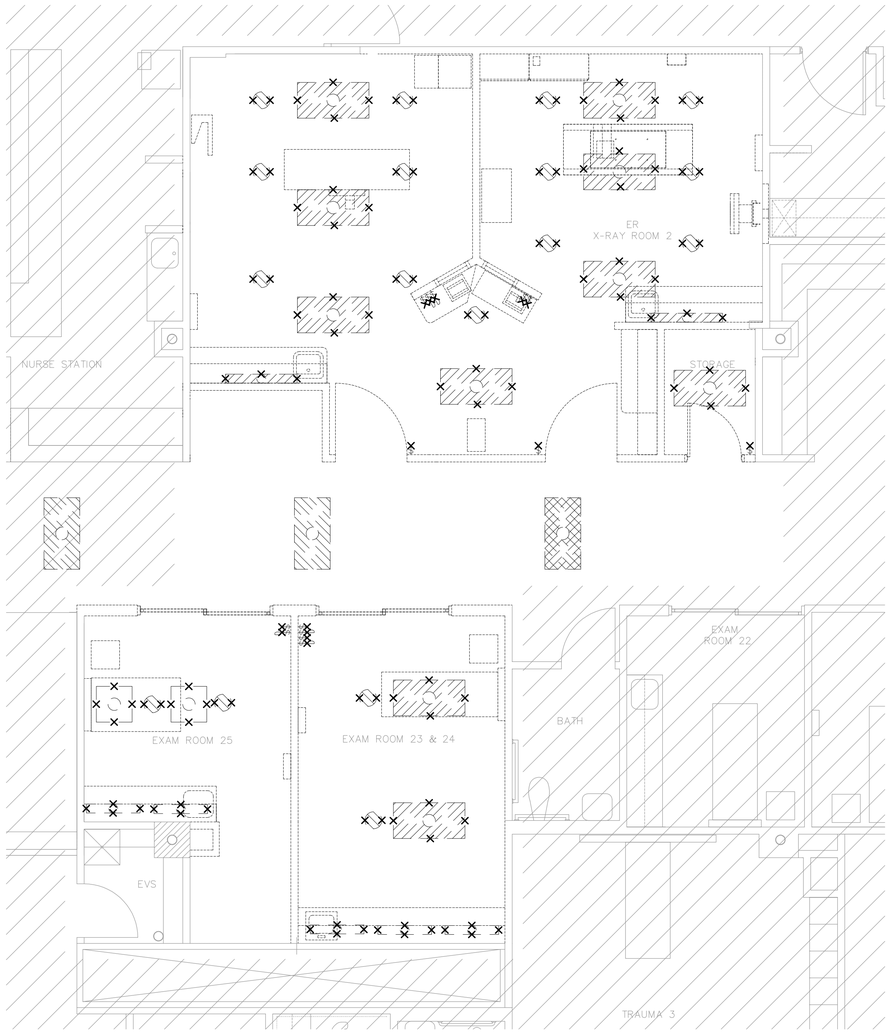
SHEET NO.:

E-1.0

OF

GENERAL NOTES

A. REFER TO SHEET E-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.



NORTH

01 LIGHTING DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wgriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
Health ONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN dp LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
JONATHAN M. GRANT
48502
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.:	14-04
DRAWN BY:	DG/LS
CHECKED BY:	JG
SCALE:	
DATE:	04.15.15
ISSUED FOR:	CONSTRUCTION
REVISIONS:	

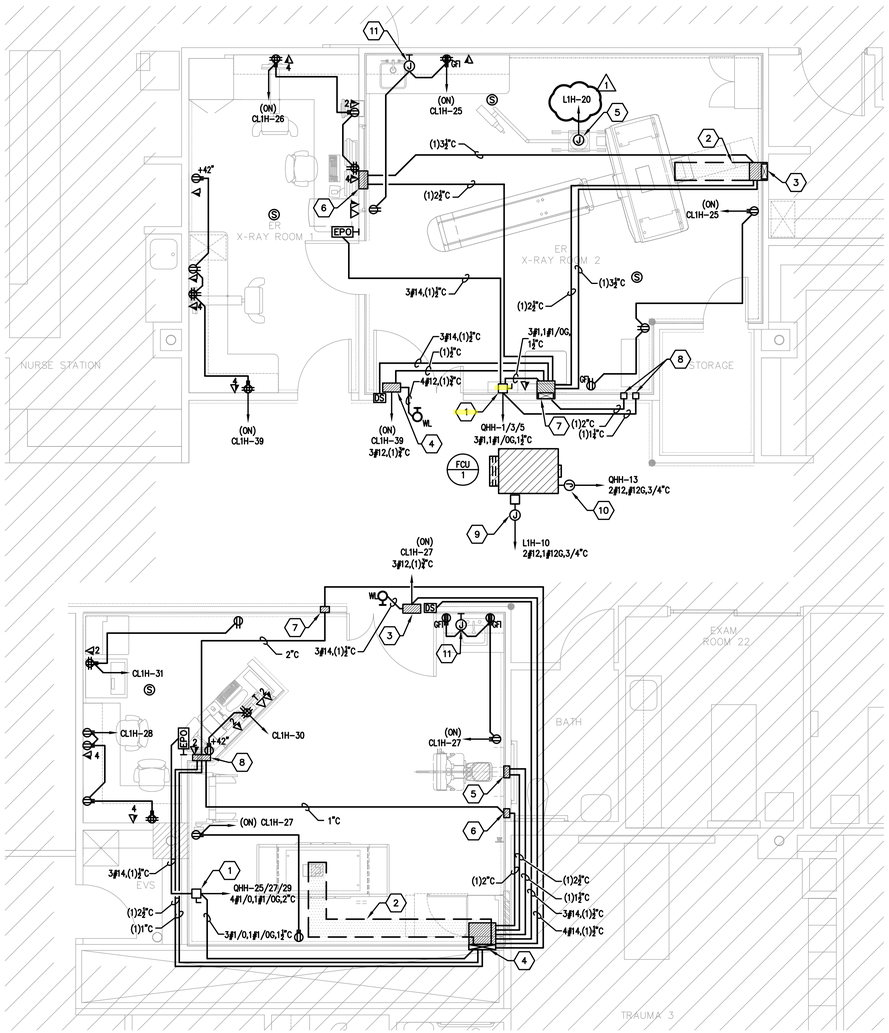
SHEET TITLE:

LIGHTING DEMOLITION PLAN

SHEET NO.:

E-1.1

OF



NORTH

01 POWER & SPECIAL SYSTEMS PLAN
SCALE: 1/4" = 1'-0"

CT GENERAL NOTES

A. REFER TO SHEET E-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.
B. ELECTRICAL CONTRACTOR SHALL REFER TO CT VENDOR INSTALLATION DRAWINGS FOR ADDITIONAL INFORMATION AND REQUIREMENTS FOR INSTALLATION OF CT EQUIPMENT. PLACEMENT OF EQUIPMENT AND SUPPORT SYSTEMS SHOWN ON THIS DRAWING ARE NOT INDICATIVE OF THE EXACT PLACEMENT OF THE SYSTEM. THE ELECTRICAL CONTRACTOR MUST COORDINATE WITH CT VENDOR INSTALLATION DRAWINGS FOR EXACT PLACEMENT AND SIZING OF THE SYSTEMS. SEE VENDOR INSTALLATION DRAWINGS FOR COMPLETE DETAILS.
C. ADDITIONAL INTERCONNECTING CONDUITS AND WIRING FOR EQUIPMENT TO BE PROVIDED BY ELECTRICAL CONTRACTOR ARE SHOWN ON X-RAY AND CT VENDOR INSTALLATION DRAWINGS. REFER TO THE CT VENDOR INSTALLATION DRAWINGS FOR ADDITIONAL CONDUITS, RACEWAY, AND WIRING REQUIREMENTS FOR INSTALLATION.
D. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL TRENCH, UNDER FLOOR, VERTICAL SURFACE, AND ABOVE CEILING DUCT AND CONDUITS SHOWN ON CT VENDOR DRAWINGS. CUT AND PATCH EXISTING FLOOR SLAB AND PARTITIONS AS REQUIRED.
E. ELECTRICAL CONTRACTOR IS REQUIRED TO PROVIDE AND INSTALL ALL CONTRACTOR/OWNER PROVIDED EQUIPMENT, CONDUITS, AND WIRING INDICATED ON VENDOR DRAWINGS.
F. ALL CONDUIT SHALL BE UNDER FLOOR, WITHIN PARTITIONS, OR ABOVE THE CEILING. THERE SHALL BE NO EXPOSED CONDUIT EXCEPT OVERHEAD CONDUIT IN ROOMS WITHOUT CEILINGS.
G. LOCATE ABOVE COUNTER DEVICES AT 44" AFF (U.N.O.).
H. CIRCUIT NUMBERS REPRESENT DESIGN INTENT ONLY. CONTRACTOR SHALL VERIFY EXISTING CIRCUITS IN FIELD. NOTIFY ENGINEER OF ANY DISCREPANCIES.

CT LEGEND NOTES

1. VENDOR PROVIDED IMAGING EQUIPMENT MAIN DISCONNECT SWITCH.
2. 12"X3" TRENCH DUCT. PROVIDE DIVIDERS AND OPENINGS AND GROMMETS AS INDICATED ON IMAGING VENDOR DRAWINGS.
3. 10"x3 1/2" FLUSH MOUNTED WALL DUCT ROUTED FROM TRENCH DUCT IN FLOOR TO 12"X12"X6" JUNCTION BOX ABOVE CEILING. PROVIDE OPENINGS AND GROMMETS AS INDICATED ON IMAGING VENDOR DRAWINGS. COORDINATE FLEXIBLE CONDUIT REQUIREMENTS WITH VENDOR DRAWINGS.
4. WARNING LIGHT CONTROLLER, LOCATED ABOVE ACCESSIBLE CEILING, AVAILABLE FROM IMAGING VENDOR. REFER TO IMAGING VENDOR DRAWINGS FOR ADDITIONAL REQUIREMENTS.
5. CONDUIT CONNECTION TO CEILING MOUNTED INJECTOR. COORDINATE TERMINATOR REQUIREMENTS WITH INJECTOR VENDOR.
6. 12"x12"x6" FLUSH MOUNTED JUNCTION BOX LOCATED AT FINISHED FLOOR HEIGHT. COORDINATE OPENINGS AND GROMMETS WITH IMAGING VENDOR DRAWINGS.
7. 10"X3-1/2" FLUSH MOUNTED VERTICAL WALL DUCT ROUTED FROM FINISHED FLOOR LEVEL TO ABOVE CEILING. DUCT SHALL TERMINATE IN A 12"X12"X6" BOX LOCATED ABOVE FINISHED CEILING.
8. PROVIDE (2) FLUSH MOUNTED 4" SQUARE BOXES LOCATED AT 1'-6" AFF FOR CONNECTION TO UPS. COORDINATE OPENINGS AND GROMMETS WITH IMAGING VENDOR DRAWINGS.
9. PROVIDE POWER FOR FAN COIL UNIT.
10. PROVIDE POWER FOR FAN COIL UNIT CONDENSATE PUMP.
11. 120V CONNECTION TO PLUMBING FIXTURE IR SENSOR POWER SUPPLY. EACH POWER SUPPLY SHALL SERVE (1) BATHROOM GROUP. COORDINATE EXACT LOCATION AND COORDINATION REQUIREMENTS WITH PLUMBING CONTRACTOR.

Locate the required overcurrent protection per 2014 NEC 240.21.

Install electrical connections per 2014 NEC 110.14, identify disconnects per 2014 NEC 110.22 and provide working space around electrical equipment per 2014 NEC 110.26.

X-RAY GENERAL NOTES

A. REFER TO SHEET E-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.
B. ELECTRICAL CONTRACTOR SHALL REFER TO X-RAY VENDOR INSTALLATION DRAWINGS FOR ADDITIONAL INFORMATION AND REQUIREMENTS FOR INSTALLATION OF X-RAY EQUIPMENT. PLACEMENT OF EQUIPMENT AND SUPPORT SYSTEMS SHOWN ON THIS DRAWING ARE NOT INDICATIVE OF THE EXACT PLACEMENT OF THE SYSTEM. THE ELECTRICAL CONTRACTOR MUST COORDINATE WITH X-RAY VENDOR INSTALLATION DRAWINGS FOR EXACT PLACEMENT AND SIZING OF THE SYSTEMS. SEE VENDOR INSTALLATION DRAWINGS FOR COMPLETE DETAILS.
C. ADDITIONAL INTERCONNECTING CONDUITS AND WIRING FOR EQUIPMENT TO BE PROVIDED BY ELECTRICAL CONTRACTOR ARE SHOWN ON X-RAY VENDOR INSTALLATION DRAWINGS. REFER TO THE X-RAY VENDOR INSTALLATION DRAWINGS FOR ADDITIONAL CONDUITS, RACEWAY, AND WIRING REQUIREMENTS FOR INSTALLATION.
D. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL TRENCH, UNDER FLOOR, VERTICAL, SURFACE, AND ABOVE CEILING DUCT AND CONDUITS SHOWN ON X-RAY VENDOR DRAWINGS. CUT AND PATCH EXISTING FLOOR SLAB AND PARTITIONS AS REQUIRED.
E. ELECTRICAL CONTRACTOR IS REQUIRED TO PROVIDE AND INSTALL ALL CONTRACTOR/OWNER PROVIDED EQUIPMENT, CONDUITS, AND WIRING INDICATED ON VENDOR DRAWINGS.
F. ALL CONDUIT SHALL BE UNDER FLOOR, WITHIN PARTITIONS, OR ABOVE THE CEILING. THERE SHALL BE NO EXPOSED CONDUIT EXCEPT OVERHEAD CONDUIT IN ROOMS WITHOUT CEILINGS.
G. LOCATE ABOVE COUNTER DEVICES AT 44" AFF (U.N.O.).
H. CIRCUIT NUMBERS REPRESENT DESIGN INTENT ONLY. CONTRACTOR SHALL VERIFY EXISTING CIRCUITS IN FIELD. NOTIFY ENGINEER OF ANY DISCREPANCIES.

X-RAY LEGEND NOTES

1. VENDOR PROVIDED IMAGING EQUIPMENT MAIN DISCONNECT SWITCH.
2. 12"X3" TRENCH DUCT. PROVIDE DIVIDERS AND OPENINGS AND GROMMETS AS INDICATED ON IMAGING VENDOR DRAWINGS.
3. WARNING LIGHT CONTROLLER, LOCATED ABOVE ACCESSIBLE CEILING, AVAILABLE FROM IMAGING VENDOR. REFER TO IMAGING VENDOR DRAWINGS FOR ADDITIONAL REQUIREMENTS.
4. 18"x3 1/2" FLUSH MOUNTED WALL DUCT ROUTED FROM TRENCH DUCT IN FLOOR TO 18"X18"X6" JUNCTION BOX ABOVE CEILING. PROVIDE OPENINGS AND GROMMETS AS INDICATED ON IMAGING VENDOR DRAWINGS. COORDINATE FLEXIBLE CONDUIT REQUIREMENTS WITH VENDOR DRAWINGS.
5. 8"X8"X4" JUNCTION BOX FOR CHEST UNIT.
6. 6"X6"X4" TETHER INTERFACE BOX.
7. 6"X6"X4" JUNCTION BOX FOR DONGLE CONNECTION.
8. 12"6"X4" OPERATORS CONSOLE.
9. PROVIDE POWER FOR FAN COIL UNIT.
10. PROVIDE POWER FOR FAN COIL UNIT CONDENSATE PUMP.
11. 120V CONNECTION TO PLUMBING FIXTURE IR SENSOR POWER SUPPLY. EACH POWER SUPPLY SHALL SERVE (1) BATHROOM GROUP. COORDINATE EXACT LOCATION AND COORDINATION REQUIREMENTS WITH PLUMBING CONTRACTOR.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: wariffin
Date: Jul 10, 2015
2009 INTERNATIONAL CODES & 2014 NEC

RSN: 1024436
Permit #: 15-976795 LT

The Medical Center of Aurora
HealthONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

dp DESIGN LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED JONATHAN M. GRANT 48502 4/15/15 PROFESSIONAL ENGINEER

PROJECT NO.:	14-04
DRAWN BY:	DG/LS
CHECKED BY:	JG
SCALE:	
DATE:	05.19.15
ISSUED FOR:	CONSTRUCTION
REVISIONS:	
1	ADD 01 - 05.19.15

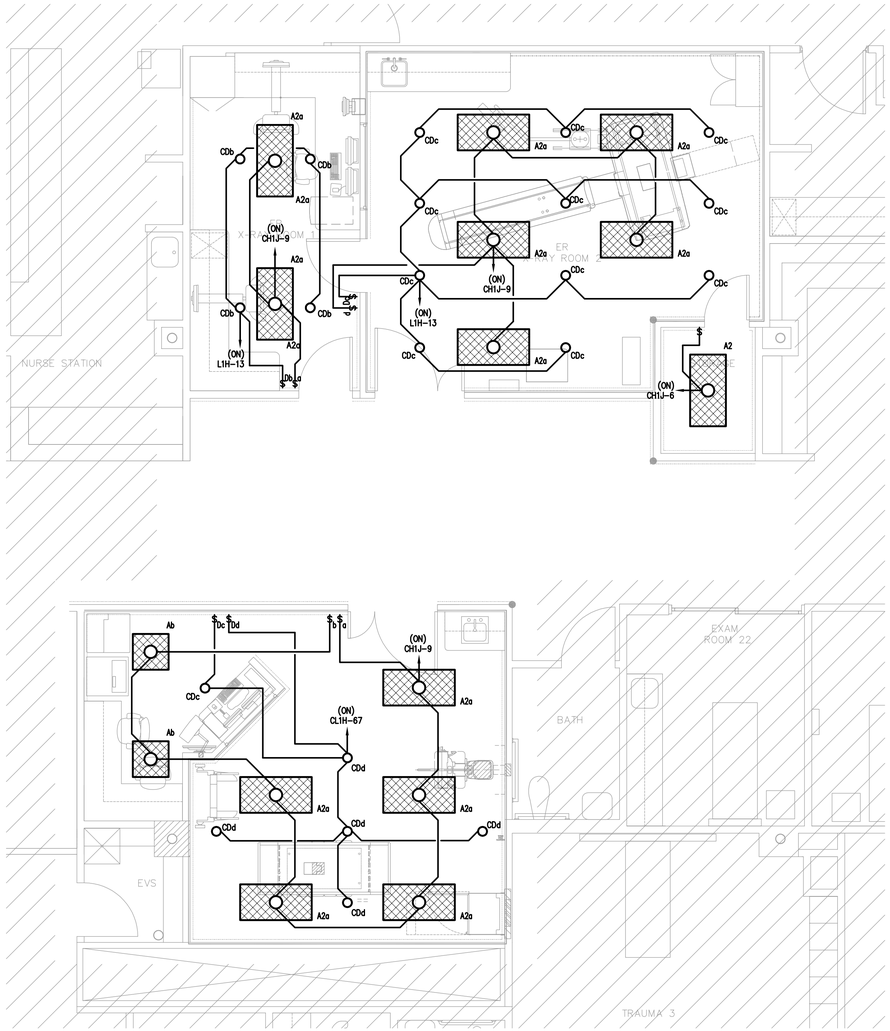
SHEET TITLE:
POWER & SPECIAL SYSTEMS PLAN

SHEET NO.:
E-2.0

OF

GENERAL NOTES

A. REFER TO SHEET E-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.
B. CIRCUIT NUMBERS REPRESENT DESIGN INTENT ONLY. CONTRACTOR SHALL VERIFY EXISTING CIRCUITS IN FIELD. NOTIFY ENGINEER OF ANY DISCREPANCIES.



01 LIGHTING PLAN
SCALE: 1/4" = 1'-0"

This work must also comply with **2009 IECC**

Locate the required overcurrent protection per 2014 NEC 240.21.

Install electrical connections per 2014 NEC 110.14, identify disconnects per 2014 NEC 110.22 and provide working space around electrical equipment per 2014 NEC 110.26.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wariffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
Health ONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN dp LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
JONATHAN M. GRANT
48502
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.: 14-04
DRAWN BY: DG/LS
CHECKED BY: JG
SCALE:
DATE: 04.15.15
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
LIGHTING PLAN

SHEET NO.:
E-2.1
OF

EXISTING PANEL: QHH — EQUIPMENT

LOCATION: ELEC 1-1803 | FED FROM: EDPA | NEUTRAL BUS: Yes
MAIN BUS: 225A | WIRES: 4W + G | GROUND BUS: Yes
MCB: N/A | ENCLOSURE: NEMA 1 | ISOLATED GROUND BUS: No
VOLTAGE: 480/277 | BUS TYPE: Copper | 200% NEUTRAL: No
AIC: 14,000A | MOUNTING: Surface | FEED THROUGH LUGS: No
PANEL LUGS: Main Lugs Only

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	PHASE	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
1	CT	33216	90*	3	A	20	1	-	SPARE	2
3	---	33216	-	-	B	80	3	-	SPARE	4
5	---	33216	-	-	C	-	-	-	---	6
7	SPARE	-	70	3	A	-	-	-	---	8
9	---	-	-	-	B	20	1	-	SPARE	10
11	---	-	-	-	C	20	1	-	SPARE	12
13	FCU-1	2216	15*	1	A	20	1	-	SPARE	14
15	SPARE	-	20	1	B	-	-	-	SPACE	16
17	SPARE	-	20	1	C	-	-	-	SPACE	18
19	SPARE	-	20	1	A	30	3	-	EXISTING LOAD	20
21	SPARE	-	20	1	B	-	-	-	---	22
23	SPARE	-	20	1	C	-	-	-	---	24
25	X-RAY	41520	75*	3	A	30	3	-	SPARE	26
27	---	41520	-	-	B	-	-	-	---	28
29	---	41520	-	-	C	-	-	-	---	30
31	SPACE	-	-	-	A	30	3	-	SPARE	32
33	SPACE	-	-	-	B	-	-	-	---	34
35	SPACE	-	-	-	C	-	-	-	---	36
37	N/A	-	X	X	A	X	X	-	N/A	38
39	N/A	-	X	X	B	X	X	-	N/A	40
41	N/A	-	X	X	C	X	X	-	N/A	42

NOTES:
* REPLACE EXISTING CIRCUIT BREAKER WITH NEW CIRCUIT BREAKER SIZED AS INDICATED.
CIRCUIT BREAKER SHALL MATCH PANELBOARD MANUFACTURER (GE), TYPE, AND AIC RATING.

'QHH' LOAD SUMMARY

	LTS	RCPTS	MTRS	HSPTL	X-RAY	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	0.0	0.0	2.2	0.0	224.2	0.0	226.4	272.3
DEMAND FACTOR	SEE DEMAND FACTOR TABLE							
TOTAL DEMAND LOAD	0.0	0.0	2.8	0.0	87.2	0.0	90.0	108.2
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00	1.00	1.00	1.00		
TOTAL DESIGN LOAD	0.0	0.0	2.8	0.0	87.2	0.0	90.0	108.2

REMOVED LOAD	282.34 KVA
ADDED LOAD	226.43 KVA
TOTAL NET LOAD	-55.91 KVA
PERCENT LOAD ADDED	0%

Service equipment shall be permanently and legibly marked to show the available fault current and date.
2014 NEC 110.24(A)(B).

Legibly identify each breaker or switch for it's use or purpose on the circuit directory in the panel/switchboard per 2014 NEC 408.4.

EXISTING PANEL: CH1J — CRITICAL

LOCATION: 1E-5901A | FED FROM: CBDP | NEUTRAL BUS: Yes
MAIN BUS: 225A | WIRES: 4W + G | GROUND BUS: Yes
MCB: N/A | ENCLOSURE: NEMA 1 | ISOLATED GROUND BUS: No
VOLTAGE: 480/277 | BUS TYPE: Copper | 200% NEUTRAL: No
AIC: 14,000A | MOUNTING: Surface | FEED THROUGH LUGS: No
PANEL LUGS: Main Lugs Only

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	PHASE	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
1	EXISTING LOAD	-	20	1	A	20	1	-	EXISTING LOAD	2
3	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	4
5	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	6
7	EXISTING LOAD	-	20	1	A	20	1	-	EXISTING LOAD	8
9	LTS - X-RAY/CT	443	20	1	B	20	1	-	SPARE	10
11	SPARE	-	20	1	C	20	1	-	SPARE	12
13	SPARE	-	20	1	A	20	1	-	SPARE	14
15	SPARE	-	20	1	B	20	1	-	SPARE	16
17	SPARE	-	20	1	C	20	1	-	SPARE	18
19	SPARE	-	20	1	A	20	1	-	SPARE	20
21	SPARE	-	20	1	B	20	1	-	SPARE	22
23	EXISTING LOAD	-	20	3	C	-	-	-	SPACE	24
25	---	-	-	-	A	60	3	-	EXISTING LOAD	26
27	---	-	-	-	B	-	-	-	---	28
29	EXISTING LOAD	-	60	3	C	-	-	-	---	30
31	---	-	-	-	A	-	-	-	SPACE	32
33	---	-	-	-	B	-	-	-	SPACE	34
35	SPACE	-	-	-	C	-	-	-	SPACE	36
37	SPACE	-	-	-	A	-	-	-	EXISTING LOAD	38
39	SPACE	-	-	-	B	-	-	-	EXISTING LOAD	40
41	SPACE	-	-	-	C	-	-	-	EXISTING LOAD	42

NOTES:

'CH1J' LOAD SUMMARY

	LTS	RCPTS	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	0.4	0.0	0.0	0.4	0.5
DEMAND FACTOR	SEE DEMAND FACTOR TABLE				
TOTAL DEMAND LOAD	0.4	0.0	0.0	0.4	0.5
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00		
TOTAL DESIGN LOAD	0.6	0.0	0.0	0.6	0.7

REMOVED LOAD	664 VA
ADDED LOAD	443 VA
TOTAL NET LOAD	-201 VA
PERCENT LOAD ADDED	0%

Affected circuits, all circuits are existing. No new circuits have been installed, Per electrical engineer.

EXISTING PANEL: L1H — NORMAL

LOCATION: ELEC 1-1803 | FED FROM: H1H | NEUTRAL BUS: Yes
MAIN BUS: 125A | WIRES: 4W + G | GROUND BUS: Yes
MCB: 100A | ENCLOSURE: NEMA 1 | ISOLATED GROUND BUS: No
VOLTAGE: 208/120 | BUS TYPE: Copper | 200% NEUTRAL: No
AIC: 10,000A | MOUNTING: Surface | FEED THROUGH LUGS: No
PANEL LUGS: Main Circuit Breaker

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	PHASE	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
1	SPARE TO XRAY	-	20	1	A	20	1	-	EXISTING LOAD	2
3	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	4
5	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	6
7	EXISTING LOAD	-	20	1	A	20	1	-	EXISTING LOAD	8
9	EXISTING LOAD	-	20	1	B	20	1	75	FCU CONDENSATE PUMP	10
11	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	12
13	LTS - CT DOWNLIGHTS	390	20	1	A	20	1	-	EXISTING LOAD	14
15	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	16
17	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	18
19	EXISTING LOAD	-	20	1	A	20	1	1800	CT INJECTOR	20
21	EXISTING LOAD	-	20	1	B	20	1	-	SPARE	22
23	EXISTING LOAD	-	20	1	C	20	1	-	SPACE	24
25	EXISTING LOAD	-	20	1	A	20	3	-	SPARE	26
27	EXISTING LOAD	-	20	1	B	-	-	-	SPARE	28
29	EXISTING LOAD	-	20	1	C	-	-	-	SPARE	30
31	SPACE	-	20	1	A	20	1	-	SPARE	32
33	SPACE	-	20	1	B	20	1	-	SPARE	34
35	SPACE	-	20	1	C	20	1	-	SPARE	36
37	SPACE	-	20	1	A	20	1	-	SPACE	38
39	SPACE	-	20	1	B	20	1	-	SPACE	40
41	SPACE	-	20	1	C	20	1	-	SPACE	42

NOTES:

'L1H' LOAD SUMMARY

	LTS	RCPTS	MTRS	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	0.4	0.0	0.1	1.8	2.3	6.3
DEMAND FACTOR	SEE DEMAND FACTOR TABLE					
TOTAL DEMAND LOAD	0.4	0.0	0.1	1.8	2.3	6.3
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00	1.00		
TOTAL DESIGN LOAD	0.5	0.0	0.1	1.8	2.4	6.6

REMOVED LOAD	878 VA
ADDED LOAD	2265 VA
TOTAL NET LOAD	1387 VA
PERCENT LOAD ADDED	3.1%

EXISTING PANEL: CL1H — CRITICAL

LOCATION: ELEC 1-1803 | FED FROM: EDPA | NEUTRAL BUS: Yes
MAIN BUS: 225A | WIRES: 4W + G | GROUND BUS: Yes
MCB: N/A | ENCLOSURE: NEMA 1 | ISOLATED GROUND BUS: No
VOLTAGE: 208/120 | BUS TYPE: Copper | 200% NEUTRAL: No
AIC: 10,000A | MOUNTING: Surface | FEED THROUGH LUGS: Yes
PANEL LUGS: Main Lugs Only

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	PHASE	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
1	EXISTING LOAD	-	20	1	A	20	1	-	EXISTING LOAD	2
3	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	4
5	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	6
7	EXISTING LOAD	-	20	1	A	20	1	-	EXISTING LOAD	8
9	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	10
11	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	12
13	EXISTING LOAD	-	20	1	A	20	1	-	EXISTING LOAD	14
15	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	16
17	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	18
19	EXISTING LOAD	-	20	1	A	20	1	-	EXISTING LOAD	20
21	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	22
23	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	24
25	RCPT - CT	1085	20	1	A	20	1	900	RCPT - CT	26
27	RCPT - X-RAY	909	20	1	B	20	1	720	RCPT - X-RAY	28
29	SPARE	-	20	1	C	20	1	540	RCPT - X-RAY O.C.	30
31	RCPT - X-RAY	540	20	1	A	20	1	-	EXISTING LOAD	32
33	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	34
35	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	36
37	EXISTING LOAD	-	20	1	A	20	1	-	EXISTING LOAD	38
39	RCPT - CT	904	20	1	B	20	1	-	EXISTING LOAD	40
41	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	42

NOTES:

EXISTING PANEL: CL1H (SECTION 2) — CRITICAL

LOCATION: ELEC 1-1803 | WIRES: 4W + G | NEUTRAL BUS: Yes
MAIN BUS: 225A | ENCLOSURE: NEMA 1 | GROUND BUS: Yes
MCB: N/A | BUS TYPE: Copper | ISOLATED GROUND BUS: No
VOLTAGE: 208/120 | MOUNTING: Surface | 200% NEUTRAL: No
AIC: 10,000A | PANEL LUGS: Main Lugs Only | FEED THROUGH LUGS: No

CKT NO.	DESCRIPTION	TOTAL LOAD (VA)	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	PHASE	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER POLES	TOTAL LOAD (VA)	DESCRIPTION	CKT NO
43	EXISTING LOAD	-	20	1	A	20	1	-	EXISTING LOAD	44
45	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	46
47	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	48
49	EXISTING LOAD	-	20	1	A	20	1	-	EXISTING LOAD	50
51	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	52
53	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	54
55	EXISTING LOAD	-	20	1	A	20	1	-	EXISTING LOAD	56
57	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	58
59	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	60
61	EXISTING LOAD	-	20	1	A	20	1	-	EXISTING LOAD	62
63	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	64
65	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	66
67	LTS - X-RAY DOWNLIGHTS	130	20	1	A	20	1	-	EXISTING LOAD	68
69	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	70
71	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	72
73	EXISTING LOAD	-	20	1	A	20	1	-	EXISTING LOAD	74
75	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	76
77	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	78
79	EXISTING LOAD	-	20	1	A	20	1	-	EXISTING LOAD	80
81	EXISTING LOAD	-	20	1	B	20	1	-	EXISTING LOAD	82
83	EXISTING LOAD	-	20	1	C	20	1	-	EXISTING LOAD	84

NOTES:

'CL1H' LOAD SUMMARY

	LTS	RCPTS	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	0.1	5.6	0.0	5.7	15.9
DEMAND FACTOR	SEE DEMAND FACTOR TABLE				
TOTAL DEMAND LOAD	0.1	5.6	0.0	5.7	15.9
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00		
TOTAL DESIGN LOAD	0.2	5.6	0.0	5.8	16.0

REMOVED LOAD	4808 VA
ADDED LOAD	5728 VA
TOTAL NET LOAD	920 VA
PERCENT LOAD ADDED	1.14%

Install electrical connections per 2014 NEC 110.14, identify disconnects per 2014 NEC 110.22 and provide working space around electrical equipment per 2014 NEC 110.26.

Locate the required overcurrent protection per 2014 NEC 240.21.

GENERAL NOTES

A. LOADS INDICATED IN PANEL SCHEDULES REPRESENT NEW LOAD ADDED TO INDIVIDUAL BRANCH CIRCUITS. REFER TO LOAD SUMMARIES FOR TOTAL LOAD ADDED/REMOVED FROM EACH PANELBOARD.
B. CIRCUITS INDICATED FOR RE-USE ARE BASED ON AS-BUILT DRAWINGS OR COVERPLATE LABELING AND REPRESENT DESIGN INTENT ONLY. THE CONTRACTOR SHALL VERIFY EXISTING CIRCUITS IN FIELD AND UTILIZE BRANCH CIRCUITS RECOVERED FROM DEMOLITION OR EXISTING SPARE CIRCUITS. NOTIFY ENGINEER OF ANY DISCREPANCIES.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wqriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
HealthONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:

ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami Nashville • Phoenix • Richmond • Washington D.C.

DESIGN DPLOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
JONATHAN M. GIANT
48502
4/15/15
PROFESSIONAL ENGINEER

PROJECT NO.: 14-04
DRAWN BY: DG/LS
CHECKED BY: JG
SCALE:
DATE: 05.19.15
ISSUED FOR: CONSTRUCTION
REVISIONS:
1 ADD 01 - 05.19.15
2 ADD 02 - 05.26.15

SHEET TITLE:
ELECTRICAL SCHEDULES

SHEET NO.:
E-3.0
OF

AVAILABLE FAULT CURRENT CALCULATIONS

UTILITY CONTRIBUTION

Utility Fault Current	48,200 Amperes	kVA	=	2000
		E	=	480
I = (kVAx1000)/(Ex1.732) = trans FLA		trans FLA	=	2405.697

FAULT CURRENT FROM UTILITY XMFR TO PANEL MSBA

Feeder: 11 sets 4 # 500
Conductor (Copper/Aluminum): Copper
Raceway (Steel/Aluminum): PVC
Voltage: 480

Conductor Length (distance)	L	=	150
ASC	ISCA	=	48,200
# conductors per phase	N	=	11
Phase conductor constant	C	=	23256
Voltage L-L	EL-L	=	480
f = (1.732xLxISCA)/(NxCxEL-L)	f	=	0.102
M = 1/(1+f)	M	=	0.907
ISCA = ISCA x M	ISCA	=	43,739

FAULT CURRENT FROM PANEL MSBA TO PANEL MDP2

Feeder: 5 sets 4 # 400
Conductor (Copper/Aluminum): Copper
Raceway (Steel/Aluminum): Steel
Voltage: 480

Conductor Length (distance)	L	=	25
ASC	ISCA	=	43,739
# conductors per phase	N	=	5
Phase conductor constant	C	=	17857
Voltage L-L	EL-L	=	480
f = (1.732xLxISCA)/(NxCxEL-L)	f	=	0.044
M = 1/(1+f)	M	=	0.958
ISCA = ISCA x M	ISCA	=	41,888

FAULT CURRENT FROM PANEL MDP2 TO ATS #2

Feeder: 1 sets 4 # 4/0
Conductor (Copper/Aluminum): Copper
Raceway (Steel/Aluminum): Steel
Voltage: 480

Conductor Length (distance)	L	=	27
ASC	ISCA	=	41,888
# conductors per phase	N	=	1
Phase conductor constant	C	=	12500
Voltage L-L	EL-L	=	480
f = (1.732xLxISCA)/(NxCxEL-L)	f	=	0.326
M = 1/(1+f)	M	=	0.754
ISCA = ISCA x M	ISCA	=	31,579

FAULT CURRENT FROM ATS #2 TO PANEL EDPA

Feeder: 1 sets 4 # 4/0
Conductor (Copper/Aluminum): Copper
Raceway (Steel/Aluminum): Steel
Voltage: 480

Conductor Length (distance)	L	=	4
ASC	ISCA	=	31,579
# conductors per phase	N	=	1
Phase conductor constant	C	=	12500
Voltage L-L	EL-L	=	480
f = (1.732xLxISCA)/(NxCxEL-L)	f	=	0.036
M = 1/(1+f)	M	=	0.965
ISCA = ISCA x M	ISCA	=	30,468

FAULT CURRENT FROM PANEL EDPA TO PANEL QHH

Feeder: 1 sets 3 # 1
Conductor (Copper/Aluminum): Copper
Raceway (Steel/Aluminum): Steel
Voltage: 480

Conductor Length (distance)	L	=	150
ASC	ISCA	=	30,468
# conductors per phase	N	=	1
Phase conductor constant	C	=	6250
Voltage L-L	EL-L	=	480
f = (1.732xLxISCA)/(NxCxEL-L)	f	=	2.638
M = 1/(1+f)	M	=	0.275
ISCA = ISCA x M	ISCA	=	8,374

AVAILABLE FAULT CURRENT CALCULATIONS

EMERGENCY GENERATOR CONTRIBUTION

Utility Fault Current	6,014 Amperes	kVA	=	750
		E	=	480
I = (kVAx1000)/(Ex1.732) = trans FLA		trans FLA	=	902.1363

FAULT CURRENT FROM EMERGENCY GENERATOR TO PANEL MTSA

Feeder: 4 sets 4 # 350
Conductor (Copper/Aluminum): Copper
Raceway (Steel/Aluminum): PVC
Voltage: 480

Conductor Length (distance)	L	=	25
ASC	ISCA	=	6,014
# conductors per phase	N	=	4
Phase conductor constant	C	=	18868
Voltage L-L	EL-L	=	480
f = (1.732xLxISCA)/(NxCxEL-L)	f	=	0.007
M = 1/(1+f)	M	=	0.993
ISCA = ISCA x M	ISCA	=	5,971

FAULT CURRENT FROM PANEL MTSA TO PANEL GPDPA

Feeder: 4 sets 4 # 350
Conductor (Copper/Aluminum): Copper
Raceway (Steel/Aluminum): Steel
Voltage: 480

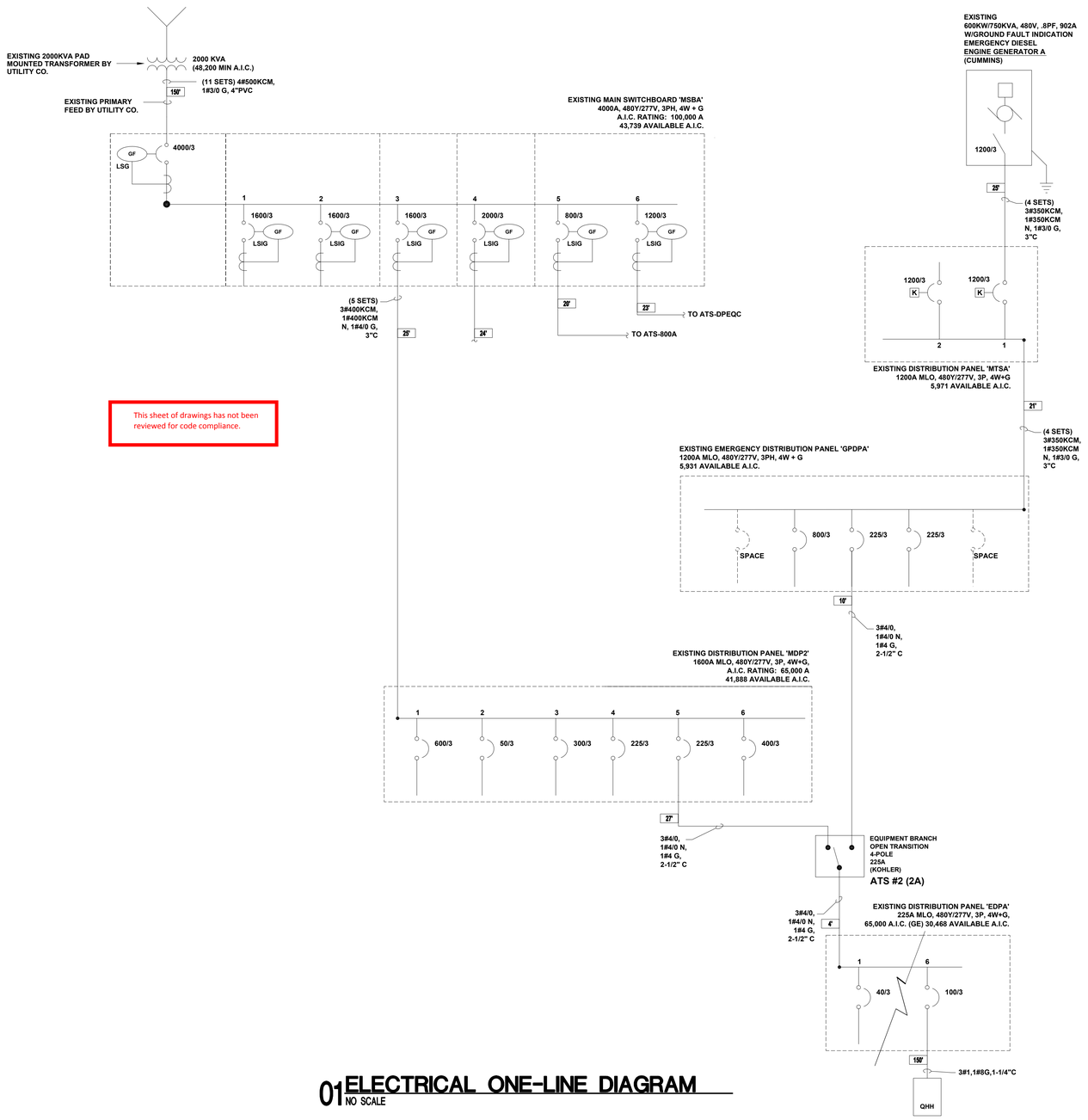
Conductor Length (distance)	L	=	21
ASC	ISCA	=	5,971
# conductors per phase	N	=	4
Phase conductor constant	C	=	16667
Voltage L-L	EL-L	=	480
f = (1.732xLxISCA)/(NxCxEL-L)	f	=	0.007
M = 1/(1+f)	M	=	0.993
ISCA = ISCA x M	ISCA	=	5,931

FAULT CURRENT FROM PANEL GDPA TO ATS #2

Feeder: 1 sets 4 # 4/0
Conductor (Copper/Aluminum): Copper
Raceway (Steel/Aluminum): Steel
Voltage: 480

Conductor Length (distance)	L	=	10
ASC	ISCA	=	5,931
# conductors per phase	N	=	1
Phase conductor constant	C	=	12500
Voltage L-L	EL-L	=	480
f = (1.732xLxISCA)/(NxCxEL-L)	f	=	0.017
M = 1/(1+f)	M	=	0.983
ISCA = ISCA x M	ISCA	=	5,831

02 AVAILABLE FAULT CURRENT STUDY
NO SCALE



01 ELECTRICAL ONE-LINE DIAGRAM
NO SCALE

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
HealthONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA
1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami Nashville • Phoenix • Richmond • Washington D.C.

DESIGN LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED JONATHAN M. GRANT 48502 4/15/15 PROFESSIONAL ENGINEER

PROJECT NO.:	14-04
DRAWN BY:	DG/LS
CHECKED BY:	JG
SCALE:	
DATE:	04.15.15
ISSUED FOR:	CONSTRUCTION
REVISIONS:	

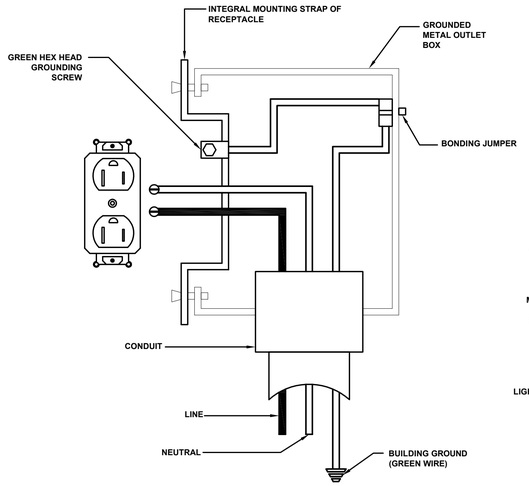
SHEET TITLE:
ELECTRICAL ONE-LINE AND AVAILABLE FAULT CURRENT CALCULATIONS

SHEET NO.:
E-4.0

OF

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION
A	DESCRIPTION: 2' X 2' LED DIRECT/INDIRECT FIXTURE WITH ACRYLIC LINEAR PRISMATIC LENS, SYMMETRICAL DISTRIBUTION, MATTE WHITE POLYESTER POWDER FINISH, MINIMUM 84% EFFICIENCY LAMP(S): 2200LM LED - 3500K BALLAST(S): INTEGRAL DRIVER VOLTAGE: 120/277V INSTALLATION: RECESSED LAY-IN GRID (OR DRYWALL CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM) MANF: LIGHTONIA #2VTL2-20L-ADP-EZ1-LP835
A2	DESCRIPTION: 2' X 4' LED DIRECT/INDIRECT FIXTURE WITH ACRYLIC LINEAR PRISMATIC LENS, SYMMETRICAL DISTRIBUTION, MATTE WHITE POLYESTER POWDER FINISH, MINIMUM 84% EFFICIENCY LAMP(S): 3300LM LED - 3500K BALLAST(S): INTEGRAL DRIVER VOLTAGE: 120/277V INSTALLATION: RECESSED LAY-IN GRID (OR DRYWALL CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM) MANF: LIGHTONIA #2VTL4-30L-ADP-EZ1-LP835
C	DESCRIPTION: 6" APERTURE LED DOWNLIGHT, 0-10V DIMMING DRIVER, SEMI-SPECULAR REFECTOR FINISH. LAMP(S): 3500K - 26W LED BALLAST(S): INTEGRAL DIMMING DRIVER VOLTAGE: 120 INSTALLATION: RECESSED MANF: M2RDL6L-26L35K-277-DCC-ARCH-ARCH-ARCH
*D	DESCRIPTION: FIXTURES PROVIDED WITH A 'D' SUFFIX SHALL BE PROVIDED WITH 100%-5%, 0-10V DIMMING BALLAST LAMP(S): COORDINATE WITH FIXTURE BALLAST(S): N/A VOLTAGE: 120 INSTALLATION: INTEGRAL TO FIXTURE MANF: LUTRON ACCEPT. MFR: ADVANCE
*E	DESCRIPTION: FIXTURES WITH AN 'E' SUFFIX SHALL BE PROVIDED WITH A 90 MINUTE BATTERY BACK-UP BALLAST. SELF-TESTING DIAGNOSTICS. LAMP(S): 2 LAMPS MINIMUM 2200 LUMEN OUTPUT BALLAST(S): N/A VOLTAGE: N/A INSTALLATION: INTEGRAL TO FIXTURE MANF: BODINE ACCEPT. MFR:
WL	DESCRIPTION: LED RECESSED X-RAY "IN USE" LIGHT, THERMOPLASTIC HOUSING, WHITE HOUSING AND FACEPLATE WITH RED LETTERS. LAMP(S): LED BALLAST(S): N/A VOLTAGE: 120 INSTALLATION: RECESSED IN WALL ABOVE DOOR MANF: EXITRONICS #VEX-U-BP-WB-W-SS(X-RAY IN USE) LIGHTOLIER SURE-LITES

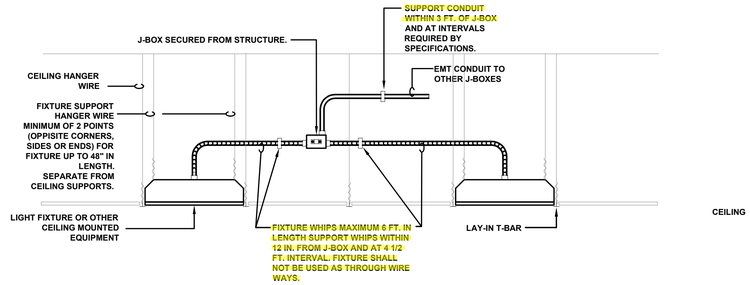


04 STANDARD RECEPTACLE GROUNDING DETAIL
NO SCALE

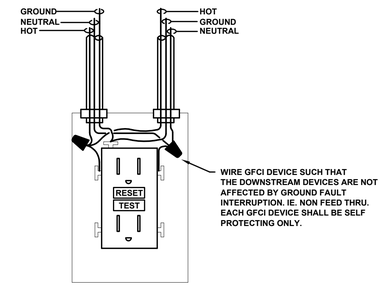
Install electrical connections per 2014 NEC 110.14, identify disconnects per 2014 NEC 110.22 and provide working space around electrical equipment per 2014 NEC 110.26.

Locate the required overcurrent protection per 2014 NEC 240.21.

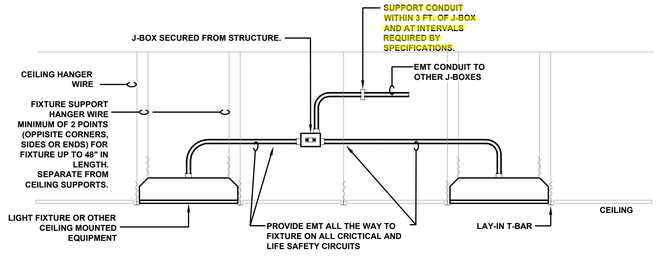
Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation. **2009 IBC 105.4**



03 LAY-IN FIXTURE MOUNTING DETAIL
NO SCALE



02 GFCI RECEPTACLE - WIRING DIAGRAM
NO SCALE



01 LAY-IN FIXTURE MOUNTING DETAIL CRITICAL AND LIFE SAFETY
NO SCALE

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *wqriffin*
Date: *Jul 10, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1024436*
Permit #: *15-976795 LT*

The Medical Center of Aurora
HealthONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
ccrd Professional Consulting Engineers
6400 South Fiddler's Green Circle
Suite 1150
Greenwood Village, CO 80111
phone: 303.694.4755
fax: 303.694.5125
Austin • Dallas • Denver • Houston • Kansas City • Miami
Nashville • Phoenix • Richmond • Washington D.C.

DESIGN dp LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED JONATHAN M. GRAY 48502 4/15/15 PROFESSIONAL ENGINEER

PROJECT NO.:	14-04
DRAWN BY:	DG/LS
CHECKED BY:	JG
SCALE:	
DATE:	04.15.15
ISSUED FOR:	CONSTRUCTION
REVISIONS:	

SHEET TITLE:

ELECTRICAL DETAILS

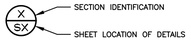
SHEET NO.:

E-5.0

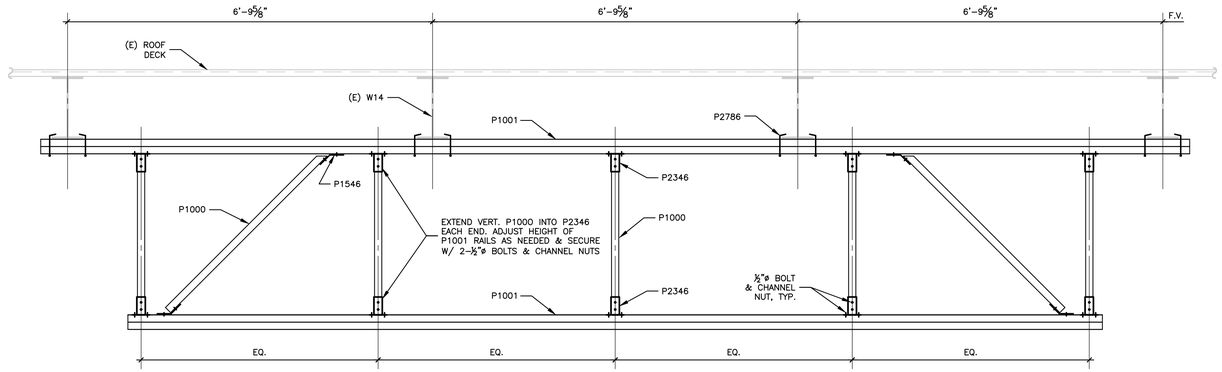
OF

GENERAL NOTES

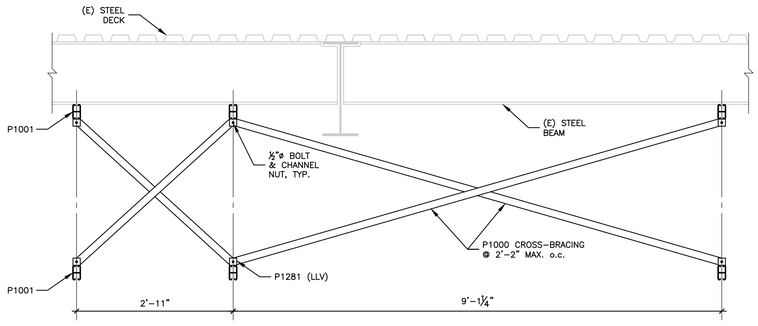
1. Design Standards:
   - A. International Building Code 2009 Edition
2. Unistrut Framing:
   - A. Standard Unistrut framing shall be supplied as specified.
   - B. All connections shall be made with standard ½" diameter Unistrut bolts and channel nuts.
   - C. Unistrut members and connections shall be installed per all applicable supplier's specifications and recommendations.
3. Steel:
   - A. Structural steel plate and angle shall conform to ASTM A36. HSS sections shall conform to ASTM A500 (Grade B).
   - B. Structural steel shall be detailed, fabricated and erected in accordance with the AISC Steel Construction Manual.
   - C. All welders shall have evidence of passing the AWS standard qualification tests, and have a current certification.
   - D. Minimum weld size shall not be less than 3/16" continuous fillet weld, unless noted otherwise.
   - E. Connections made with high strength steel bolts shall conform to the AISC Specification for Structural Joints Using A325 or A490 Bolts.
4. All dimensions on Structural drawings shall be checked against Architectural and Equipment Supplier Drawings.
5. Structural Engineer's approval must be secured for all substitutions.
6. All existing conditions and dimensions shown on the drawings shall be field verified by the contractor. It is the contractor's responsibility to immediately notify the Structural Engineer should any existing condition not be shown, or if any existing condition differs from those indicated on the drawings.
7. The contractor shall make field measurements to assure that the specified support framing can be installed according to the plans, and without interference with existing structural framing, mechanical systems, plumbing or other obstructions. Any interference shall be reported to the Architect and Structural Engineer.
8. Support framing installation shall conform to all equipment supplier's required layouts and tolerances.
9. Explanation of section designation used:



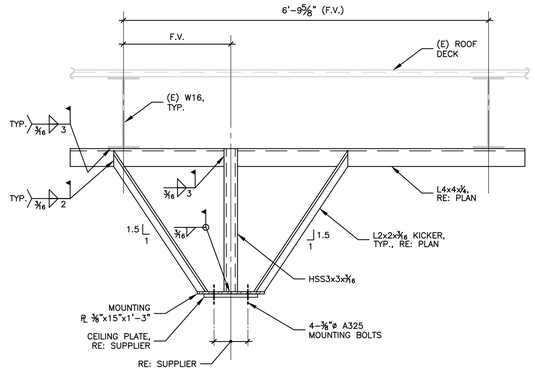
Structural plan review is limited to a general survey for code compliance. No review is implied nor was undertaken to verify structural adequacy.



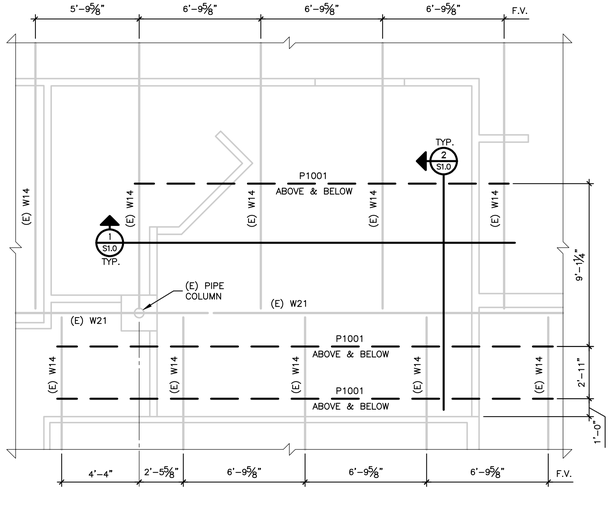
1 3/4"=1'-0"



2 3/4"=1'-0"

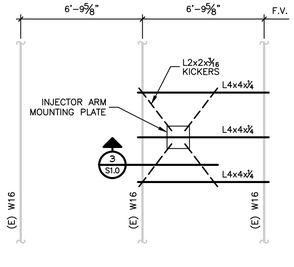


3 3/4"=1'-0"



X-RAY SUPPORT FRAMING PLAN

1/4"=1'-0"



CT INJECTOR ARM SUPPORT FRAMING PLAN

1/4"=1'-0"

RE: ARCH. FOR LOCATION

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: wgriffin
Date: Jul 10, 2015
2009 INTERNATIONAL CODES & 2014 NEC

RSN: 1024436
Permit #: 15-976795 LT

The Medical Center of Aurora
HealthONE

CT / X-RAY INSTALLATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

ASSOCIATIONS

nextlevel
7186 S. Forest Lane
Centennial, CO 80122
303.260.9455
nlen@neers.com

DESIGN DOT LOT
dpteam@thedesignplot.com
(303) 565-7282

All drawings and written material appearing herein constitute the original and unpublished work of Tom Thompson, Architect. These documents are strictly proprietary and confidential. They are not to be disclosed to third parties, distributed or reproduced without the express written permission of Tom Thompson, Architect.

COLORADO LICENSED
MATTHEW W. NICHOLS
36279
06-11-15
PROFESSIONAL ENGINEER

PROJECT NO.: 14-04

DRAWN BY: SAW
CHECKED BY: MWN
SCALE:
DATE: 06.10.15
ISSUED FOR: CONSTRUCTION
REVISIONS:

	DATE	DESCRIPTION
1		
2		
3		
4		
5		

SHEET TITLE:
EQUIPMENT SUPPORT FRAMING

SHEET NO.:
S-1.0

Drawing Index

These sheets are a document set and should not be separated.
Electrical information and references are contained on all sheets.

SITE READINESS	C1
EQUIPMENT LAYOUT (Equipment locations, heat loads, component weights, environmental specs)	A1
STRUCTURAL LAYOUT (Structural support/mounting locations for floor/wall/ceiling, wall support elevations)	S1
STRUCTURAL DETAILS (Floor and Ceiling loading information)	S2
ELECTRICAL LAYOUT (Contractor supplied wiring, interconnect methods, junction point locations and descriptions)	E1
ELECTRICAL SPECIFICATIONS (Maximum wiring run lengths, interconnect diagram, system power specifications)	E2
ELECTRICAL DETAILS	E3
EQUIPMENT DETAILS	D1

These drawings indicate the placement and interconnection of the listed equipment components. These drawings are not construction or site preparation drawings. Customer remains ultimately responsible for preparing the site to accommodate the operation of such equipment in compliance with GE Healthcare's written specifications and all applicable federal, state, and/or local requirements.

* REQUIRED REFERENCE *

Optima CT660

Pre Installation Manual

5368510-1EN

A mandatory component of this drawing set is the GE Healthcare Pre Installation manual. Failure to reference the Pre Installation manual will result in incomplete documentation required for site design and preparation.

Pre Installation documents for GE Healthcare products can be accessed on the web at:

www.gehealthcare.com/siteplanning

GE Healthcare



CT Site Planning

imagination at work

RSN: *1024436*
Permit #: *15-976795 LT*

Customer Site Readiness Requirements

- Any deviation from these drawings must be communicated in writing to and reviewed by your local GE Healthcare Installation Project Manager prior to making changes.
- Make arrangements for any rigging, special handling, or facility modifications that must be made to deliver the equipment to the installation site. If desired, your local GE Healthcare Installation Project Manager can supply a reference list of rigging contractors.
- New construction requires the following; 1. Secure area for equipment, 2. Power for drills and other test equipment, 3. Capability for image analysis, 4. Restrooms.
- Provide for refuse removal and disposal (e.g. crates, cartons, packing)
- Contact a radiation physicist or consultant to specify radiation containment requirements.

GE Equipment Delivery Requirements

The items on the GE Healthcare Site Readiness Checklist are REQUIRED to facilitate equipment delivery to the IS site. Equipment will not be delivered if these requirements are not satisfied.

GE Healthcare Site Readiness Checklist Rev 19

Before using this document ensure you have the latest Rev from MyWorkshop on DOC0422752

GEHC Global Order # : _____ Customer: _____

GEHC PMI : _____ FE / Installer: _____

The customer is responsible for proper site preparation regardless of any GEHC measurements/inspections/assessments.

	GEHC Minimum Requirements	Inspection Date: Storage Is item ready?	PMI Is item ready?	FE Is item ready?	Comments If "N", enter comments or action plan
1	**MR Magnet Delivery Requirements:** Ensure cryogen venting system is available for magnet connection as defined by GEHC Pre-Installation Manual (PIM) requirements, exhaust fan system is installed and operational, 480V power, and chilled water supply is available 24x7 that meets system cooling requirements. External connectivity is available for magnet monitoring and phone service is available during delivery. Surface mount vibromat installed where required. Magnet room final flooring is in place.				
2	**MR RF Screen Room Requirements:** RF Screen Room is tested with copy of Test Report, emailed to ISAdminCOEMB@ge.com, that it is compliant with GEHC specifications. Dock Bolt and magnet anchors (if applicable) installed using 2 part anchor. For HDx systems, blower box mount bolts installed by RF vendor using 2 part anchors				
3	**State Regulatory Requirements:** Facility registration number provided for states of Ill, KY, HI, RI, SC, TX. X-ray shielding plan and state acknowledgment letter provided to installer for AR, DC, NC, SC, CO & WA. **Site Drawing Requirements:** Final version of equipment network and antenna, installation drawings (including red lined versions) verified to match actual room and has been provided to installer.				
4	**Surface Penetration Requirements:** Customer/Contractor scheduled to provide required drilling or cutting into floors, ceilings, and walls; OR surface penetration permit available and posted in the room when GEHC will perform the work.				
5	**Pre-Delivery Route Requirements:** The equipment delivery route from the truck to the final destination within the facility has been reviewed with all key stakeholders to safely meet the minimum requirements for equipment access, and all communications/notifications have occurred. Arrangements have been made for special handling (elevator, rigging, floor protection, fork lift, rollback truck, etc).				
6	**Finished Room Requirements:** Rooms that will contain equipment, including storage areas not in scan suite, are dust free. Provisions taken to maintain a dust free room. Precautions must be taken to prevent dust from entering rooms containing equipment when construction is incomplete in adjacent areas. All walls primed (final coat not needed on Day 1). Shielding, doors, and windows are to be installed. No contractor work being done during or after the installation that will cause dust in the installation areas or potential equipment damage. Room security to prevent unauthorized access and theft has been discussed with customer. The customer is aware of these security issues, implications and responsibility. For Storage: Room must meet PIM requirements for storage.				
7	**Electrical Requirements:** Lockable (LOTO) Main Disconnect Panel (MDP) is installed per GE guidelines and system power is available. Conduits, electrical cable ducting/dividers/cable trays, and access flooring is installed in proper location and height. Surface floor duct and load-side wires can be installed at time of system installation. Validate outlet location and requirements meet specifications for device/equipment.				
8	**HVAC Requirements:** The HVAC/Chilled Water systems designed to maintain the environment per spec/PIM is at running state and appears to provide the desired environmental conditions including location of vents, temperature and humidity for system operation.				
9	**Flooring Requirements:** Floor is clean and prepared for final floor covering. Floor levelness/flatness is measured and within tolerance, and there are no visible defects per GEHC specifications. Confirm customer anchoring plan aligns with designed floor thickness. Final flooring installed where required for network racks.				
10	**Ceiling Requirements:** Unistrut (or equivalent) location, levelness and spacing is measured (or vendor confirmed) and consistent with the requirement of the installation drawings. Ensure unistrut and rails are not used as mounting surfaces. Ceiling grid is installed. Permanent lighting is installed and operational. HVAC diffusers are installed and connected to ductwork. Ceiling tiles installed per PMI discretion.				
11	**Staging Requirements:** Space has been identified to support the active installation process only. This area meets PIM/project book requirements. Storage space has been identified, if needed. This secured space would be used to store equipment indefinitely. If offsite, transportation plan has been developed at customer expense. This space must meet PIM requirements.				
12	**Network Connectivity:** Hardwire for network connectivity(network drop) is in place prior to delivery with specified network firewall configuration where required. Site Surveys for wireless mobile XR units have been completed.				
13	**Medical Gases Requirements:** Systems (hard piped or portable) in place to allow testing and calibration of equipment (anesthesia), including ventilation.				

GE Healthcare

Healthcare Project Implementation – Design Center
Milwaukee, Wisconsin

Copyright 2009 General Electric Company – Proprietary to GE

SHEET TITLE: SITE READINESS

MODALITY TYPE: OPTIMA CT660

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT. ASSOCIATED PIPING, ELECTRICAL WIRING, DUCTWORK, AND ACCESSORIES ARE ALWAYS SUBJECT TO CHANGE. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES. NEITHER GE HEALTHCARE NOR ITS COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
THE MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
150922	00

DATE: 24.Mar.15
DRAWN BY: MJH
CHECKED BY: CPC
GON NO: 4285754
GON DT: 18.Mar.15

REVISION HISTORY:

SHEET
C1

RQ – 150748 PIM R8 This drawing is based on Sketch No.: S15-0204

GE EQUIPMENT LISTING

EQUIPMENT ON ORDER FROM GE HEALTHCARE, INSTALLED BY GE HEALTHCARE, PER GON 4285754 DATED 18.Mar.15

NOTE: LOCAL CONDITIONS MAY DICTATE THAT ITEMS IDENTIFIED IN THIS CATEGORY BE INSTALLED BY OTHERS.

EQUIPMENT CROSS REFERENCE CHART

SEISMIC STATUS: P = PREAPPROVAL; C = CALCULATIONS/PENDING APPROVAL; S = SPECIFICATIONS ONLY

ITEM NO.	QUANTITY ORDERED	ITEM DESCRIPTION (* = EXISTING/REINSTALL)	WEIGHT	HEAT OUTPUT (PER HOUR)	DETAIL NO.	STRC PLAN	ELEC PLAN	SEISMIC STATUS
1	1	CT OPTIMA CT660 GANTRY	3990 lbs	18703 btu	B7996M, B7818A B7818B B7818D B8131 B8133	–	CTT	C
2	1	GT2000 PATIENT TABLE WITH EXTENDED TABLE TOP (W/500 lb PATIENT)	1567 lbs	1023 btu	B7920	–		–
3	1	REAR CABLE COVER			B8141	.		–
4	1	STORAGE CABINET (EMPTY CABINET WEIGHT)	99 lbs		M33005	–		–
5	1	T. I. D. CABINET	194 lbs	8191 btu	B8105	–		S
6	1	OPERATOR'S CHAIR				.		–
7	1	UPS SYSTEM	350 lbs	3399 btu	B7999ZA	–	UPS	–
8	1	POWER DISTRIBUTION UNIT	815 lbs	3412 btu	B7858D	–	PM	S

THE FOLLOWING ITEMS, WHICH HAVE BEEN ORDERED FROM GE HEALTHCARE, ARE TO BE INSTALLED BY THE CUSTOMER OR HIS CONTRACTOR.

ITEM NO.	QUANTITY ORDERED	ITEM DESCRIPTION (* = EXISTING/REINSTALL)	WEIGHT	HEAT OUTPUT (PER HOUR)	DETAIL NO.	STRC PLAN	ELEC PLAN	SEISMIC STATUS
50	1	MAIN DISCONNECT CONTROL CAT NO. E4502AB (IF A UPS IS NOT OR WILL NOT BE ORDERED, THE E4502AD CAN BE USED.)	90 lbs			–	A1	C

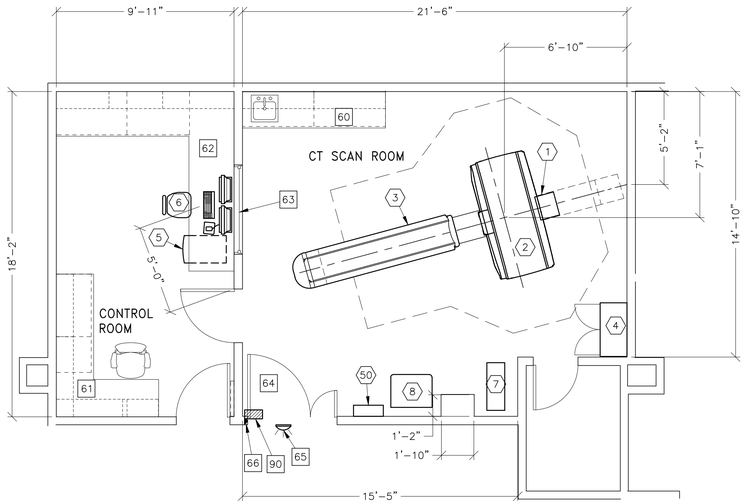
SCALE: 1/4" = 1'–0"

EQUIPMENT LAYOUT

RECOMMENDED CEILING HEIGHT = 9'–6"

This equipment layout indicates the placement and interconnection of the indicated equipment components. There may be federal, state, and/or local requirements that could impact the placement of these components. It remains the Customer's responsibility for ensuring the site and final equipment placement complies with all applicable federal, state, and/or local requirements.

This sheet of drawings has not been reviewed for code compliance.



State-Acknowledged X-Ray Shielding Design

State-Acknowledged Shielding Design Plan # N/A
Date: N/A by: N/A

Physicist's name: Nathan Busse, M.S., DABR, QE#238
Design date: 27.Feb.2015

NOTE: GE HEALTHCARE is listing the State-Acknowledged X-Ray Shielding Design Plan above only for customer's convenience. Listing the design does not relieve the customer of any of its obligations under any contract with GE HEALTHCARE.

ANCILLARY ITEMS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
60	COUNTER TOP WITH SINK, BASE AND WALL CABINETS
61	COUNTER TOP WITH BASE AND WALL CABINETS
62	COUNTER TOP FOR EQUIPMENT–MINIMUM DEPTH 30 in. OR ADDITIONAL SHELVING MAY BE REQUIRED PROVIDE GROMMETED OPENINGS AS REQUIRED TO ROUTE INTERCONNECT CABLES TO RACEWAY BELOW COUNTERTOP.
63	LEAD GLASS WINDOW
64	MINIMUM DOOR OPENING FOR EQUIPMENT DELIVERY IS 44 IN. (w) x 83 IN. (h) [1118mm x 2108mm], CONTINGENT ON A 96 IN. [2438mm] CORRIDOR WIDTH
65	X-RAY ON WARNING LIGHT – AVAILABLE FROM GE SUPPLY CALL: 800-200-9760 GE CAT. NO. WX1ABWW-0F-X1U
66	DOOR LIMIT SWITCH (REQUIRED IN SOUTH CAROLINA, OTHERWISE NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)

THE FOLLOWING ITEMS ARE AVAILABLE FROM GE HEALTHCARE TECHNOLOGIES. CONTACT YOUR LOCAL GE HEALTHCARE SERVICE REPRESENTATIVE FOR PRICING AND AVAILABILITY.

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
90	X-RAY ROOM WARNING LIGHT CONTROL PANEL REFERENCE JUNCTION POINT "WLC" ON SHEET "E1" FOR DETAILED DESCRIPTION –E4502RL FOR WARNING LIGHT CONTROL ONLY.

GENERAL SPECIFICATIONS

- THE REQUIRED CEILING HEIGHT INDICATED ON THESE PLANS IS TO ENSURE EQUIPMENT FUNCTION IS NOT INHIBITED. CONSULT WITH YOUR LOCAL GEHC IS SPECIALIST REGARDING ACCEPTABILITY OF OTHER CEILING HEIGHTS.
- CHECK ALL DOOR OPENINGS AND HALLWAYS FROM DELIVERY LOCATION TO WHERE EQUIPMENT IS TO BE INSTALLED TO ENSURE THE ROUTE PHYSICALLY AND STRUCTURALLY WILL ACCOMODATE THE EQUIPMENT AS SHIPPED.
- RADIATION PROTECTION REQUIREMENTS ARE NOT INDICATED ON THIS PLAN. WHERE NEEDED PER NATIONAL OR LOCAL CODE THEY SHALL BE SPECIFIED BY A QUALIFIED RADIOLOGICAL PHYSICIST.
- THE DEVELOPMENT OF THE EQUIPMENT LAYOUT, ROOM DIMENSIONS, MECHANICAL AND ELECTRICAL SUGGESTIONS IS PREDICATED UPON THE BEST INFORMATION OBTAINABLE FROM THE SITE, COUPLED WITH THE CUSTOMER'S KNOWN DESIRES. ARCHITECTURAL OR ELECTRICAL CHANGES INCLUDING RELOCATION OF EQUIPMENT ILLUSTRATED ON THIS DRAWING IS ALLOWED ONLY WITH NOTIFICATION, IN WRITING, AND REVIEW BY GEHC SERVICE DEPARTMENT. EQUIPMENT OPERATION, SERVICEABILITY, AND RESTRICTING CABLE LENGTHS, ETC., MAKE THIS ESSENTIAL FOR A PROPER IS. GEHC RESERVES THE RIGHT TO MAKE ON THE JOB CHANGES BECAUSE OF CUSTOMER REQUIREMENTS AND/OR OBSTACLES IN CONSTRUCTION, ETC..
- ALL WORK TO BE IN COMPLIANCE WITH NATIONAL AND LOCAL BUILDING SAFETY CODES.
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM

SITE ENVIRONMENT SPECIFICATIONS

- AMBIENT OPERATING TEMPERATURE: 64° TO 79° F, (18° TO 26° C) MAXIMUM ALLOWABLE TEMPERATURE CHANGE OF 5° F (3° C)/HOUR, MAXIMUM ROOM TEMPERATURE GRADIENT 5°F, (3° C).
- HUMIDITY: 30 TO 60 PERCENT NON–CONDENSING, MAXIMUM ALLOWABLE CHANGE OF 5 PERCENT/HOUR.
- ALTITUDE: NOT TO EXCEED 7875 FT. (2400M) ABOVE SEA LEVEL.
- THE ENVIRONMENT FOR THE ELECTRONICS CABINET MUST BE CONTROLLED SO THE ABOVE RESTRICTIONS ARE NOT EXCEEDED.
- DO NOT RESTRICT THE AIR INTAKE OR AIR EXHAUST OF THE SYSTEM COMPONENTS.
- ENVIRONMENTAL CONDITIONS LISTED ABOVE MUST BE MAINTAINED AT ALL TIMES INCLUDING FOR EXAMPLE OVERNIGHT, WEEKENDS, AND HOLIDAYS.

MAGNETIC INTERFERENCE SPECIFICATIONS

- CT GANTRY MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN ONE GAUSS TO GUARANTEE SPECIFIED IMAGING PERFORMANCE. AMBIENT AC MAGNETIC FIELDS MUST BE BELOW 0.01 GAUSS PEAK.
- CT COMPUTER EQUIPMENT MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN TEN GAUSS TO GUARANTEE DATA INTEGRITY.
- MULTIFORMAT CAMERA EQUIPMENT MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN THREE GAUSS TO OBTAIN SPECIFIED GEOMETRIC LINEARITY.
- CT CONSOLE EQUIPMENT MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN TEN GAUSS TO OBTAIN SPECIFIED GEOMETRIC LINEARITY.

GE Project Manager: JACOB BRAVO
Telephone: 1–800–568–0329
THE GE HPI TECHNICAL SUPPORT GROUP IS AN ADDITIONAL RESOURCE THAT CAN PROVIDE ANSWERS FOR GENERAL GE PRODUCT SITING QUESTIONS AND CAN BE REACHED AT (877)–305–9677 OR MAILTO:HITECH3DE@ge.com

RSN: *1024436*
Permit #: *15-976795 LT*

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

GE Healthcare
Healthcare Project Implementation – Design Center
Wisconsin
Healthcare Project Implementation – Design Center
Milwaukee,

SHEET TITLE: EQUIPMENT LAYOUT
MODALITY TYPE: OPTIMA CT660

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ELECTRICAL WIRING. IT IS NOT TO BE USED FOR CONSTRUCTION BIDS OR INSTALLATIONS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS VERIFIED BY THE COMPANY. THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
THE MEDICAL CENTER OF AURORA
AURORA, COLORADO

This drawing is based on Sketch No.: S15-0204

RQ – 150748 PIM R8

PROJECT	REVISION
150922	00

DATE: 24.Mar.15
DRAWN BY: MJH
CHECKED BY: CPC
GON NO: 4285754
GON DT: 18.Mar.15

REVISION HISTORY:

SHEET
A1

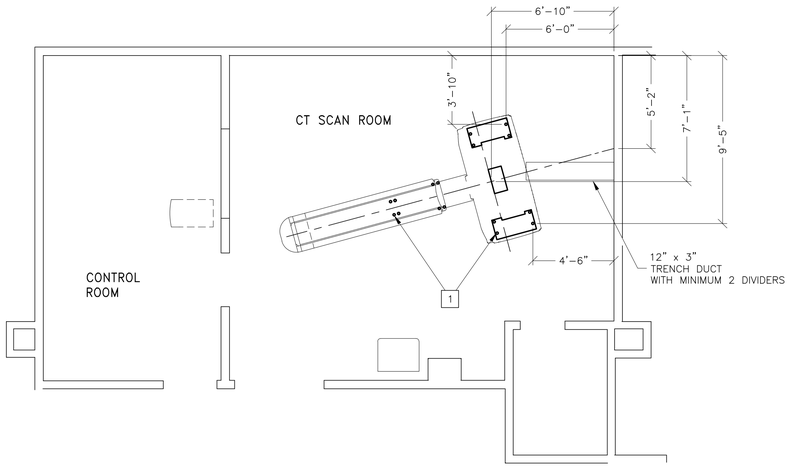
TYPICAL WALL SUPPORT ELEVATIONS

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

STRUCTURAL LAYOUT

RECOMMENDED CEILING HEIGHT = 9'-6"

This sheet of drawings has not been reviewed for code compliance.



GE Project Manager: JACOB BRAVO
Telephone: 1-800-568-0329
THE GE HPI TECHNICAL SUPPORT GROUP IS AN ADDITIONAL RESOURCE THAT CAN PROVIDE ANSWERS FOR GENERAL GE PRODUCT SITING QUESTIONS AND CAN BE REACHED AT (877)-305-9677 OR MAILTO:HPITechCOE@ge.com

STRUCTURAL SUPPORT METHODS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
1	LEVELING AREA FOR GANTRY AND TABLE SEE DETAIL B78163 ON SHEET S2.

STRUCTURAL NOTES

- ALL STEEL WORK AND PARTS NECESSARY TO SUPPORT CEILING MOUNTED EQUIPMENT IS TO BE SUPPLIED BY THE CUSTOMER OR HIS CONTRACTORS.
- METHODS OF SUPPORT FOR THE STEELWORK THAT WILL PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE CONSTRUCTION SHOULD BE FAVORED. DO NOT USE CONCRETE OR MASONRY ANCHORS IN DIRECT TENSION.
- ALL UNITS THAT ARE WALL MOUNTED OR WALL SUPPORTED ARE TO BE PROVIDED WITH SUPPORTS WHERE NECESSARY. WALL SUPPORTS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER OR HIS CONTRACTORS. SEE PLAN AND DETAIL SHEETS FOR SUGGESTED LOCATIONS AND MOUNTING HOLE LOCATIONS.
- ALL CEILING MOUNTED FIXTURES, AIR VENTS, SPRINKLERS, ETC. TO BE FLUSH MOUNTED, OR SHALL NOT EXTEND MORE THAN 1/4" BELOW THE FINISHED CEILING.
- FLOOR SLABS ON WHICH EQUIPMENT IS TO BE INSTALLED MUST BE LEVEL TO 1/4" in 10'-0"
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM.
- CUSTOMERS CONTRACTOR MUST PROVIDE ALL PENETRATIONS IN POST TENSION FLOORS.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL ANY NON-STANDARD ANCHORING. DOCUMENTS FOR STANDARD ANCHORING METHODS ARE INCLUDED WITH GE EQUIPMENT DRAWINGS FOR GEOGRAPHIC AREAS THAT REQUIRE SUCH DOCUMENTATION.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL HARDWARE FOR "THROUGH THE FLOOR" ANCHORING AND/OR ANY BRACING UNDER ACCESS FLOORS. THIS CONTRACTOR MUST ALSO PROVIDE FLOOR DRILLING THAT CANNOT BE COMPLETED BECAUSE OF AN OBSTRUCTION ENCOUNTERED WHILE DRILLING BY THE GE INSTALLER SUCH AS REBAR ETC.
- IT IS THE CUSTOMER'S RESPONSIBILITY TO PERFORM ANY FLOOR OR WALL PENETRATIONS THAT MAY BE REQUIRED. THE CUSTOMER IS ALSO RESPONSIBLE FOR ENSURING THAT NO SUBSURFACE UTILITIES (E.G., ELECTRICAL OR ANY OTHER FORM OF WIRING, CONDUITS, PIPING, DUCT WORK OR STRUCTURAL SUPPORTS (I.E. POST TENSION CABLES OR REBAR)) WILL INTERFERE OR COME IN CONTACT WITH SUBSURFACE PENETRATION OPERATIONS (E.G. DRILLING AND INSTALLATION OF ANCHORS/SCREWS) PERFORMED DURING THE INSTALLATION PROCESS. TO ENSURE WORKER SAFETY, GE INSTALLERS WILL PERFORM SURFACE PENETRATION OPERATIONS ONLY AFTER THE CUSTOMER'S VALIDATION AND COMPLETION OF THE "GE SURFACE PENETRATION PERMIT"

RSN: *1024436*
Permit #: *15-976795 LT*

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

GE Healthcare
Healthcare Project Implementation – Design Center
Milwaukee, Wisconsin

SHEET TITLE: STRUCTURAL LAYOUT
MODALITY TYPE: OPTIMA CT660

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ANCILLARY ITEMS. DETAILS AND DIMENSIONS ARE APPROXIMATIONS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS OWNER AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
THE MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
150922	00

DATE: 24.Mar.15
DRAWN BY: MJH
CHECKED BY: CPC
GON NO: 4285754
GON DT: 18.Mar.15

REVISION HISTORY:

SHEET
S1

This drawing is bosed on Sketch No.: S15-0204
PIM R8
RQ - 150748

M2M-1002

CT GANTRY AND TABLE ANCHOR/LEVELING

B78165

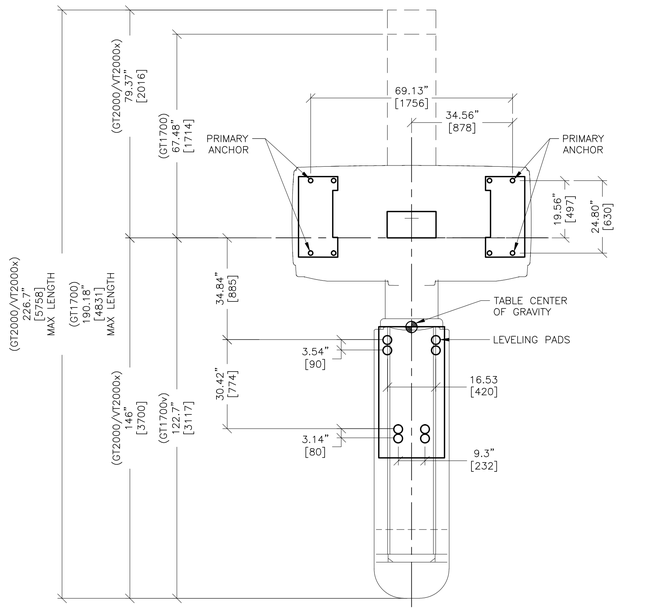
REV. DATE: 08.Aug.14

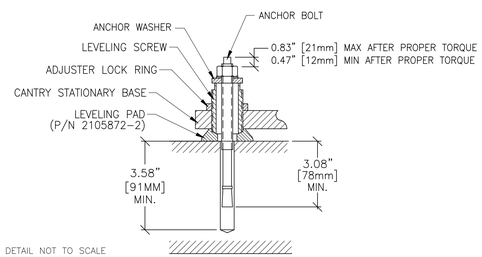
EQUIPMENT LOCATION

THE ACCEPTABLE SITE FREQUENCY RANGE ARE AS FOLLOWS:
– GANTRY 8 Hz TO 14 Hz
– PATIENT TABLE 2 Hz TO 10 Hz
IT IS THE CUSTOMERS RESPONSIBILITY TO CONTRACT A VIBRATION CONSULTANT OR QUALIFIED ENGINEER TO IMPLEMENT DESIGN MODIFICATIONS TO MEET THE SPECIFIC LIMITS. HOWEVER, IT IS ULTIMATELY THE CUSTOMER/ARCHITECT/ENGINEER RESPONSIBILITY TO DESIGN THE SITE SOLUTION.

EQUIPMENT LOCATION

TO MINIMIZE THE INTERFERENCE, THE SYSTEM SHOULD BE PLACED ON A SOLID FLOOR, LOCATED AS FAR AS POSSIBLE FROM THE VIBRATION SOURCES, SUCH AS PARKING LOTS, ROADWAYS, SUBWAYS, TRAINS, HALLWAYS, ELEVATORS, AND HOSPITAL PHYSICAL PLANTS. PLEASE NOTE THAT OTHER ITEMS NOT LISTED COULD ALSO BE POTENTIAL SOURCES OF VIBRATION.





DETAIL NOT TO SCALE

This sheet of drawings has not been reviewed for code compliance.

RSN: *1024436*
Permit #: *15-976795 LT*

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

GE Healthcare

Healthcare Project Implementation – Design Center
Milwaukee, Wisconsin

SHEET TITLE: STRUCTURAL DETAILS

MODALITY TYPE: OPTIMA CT660

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ANCILLARY ITEMS. ELECTRONIC MEDIA IS LIABLE TO UNAUTHORIZED ALTERATIONS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS VERIFIED AND APPROVED. THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

This drawing is based on Sketch No.: S15-0204

PIM R8

RQ – 150748

PROJECT TITLE:

THE MEDICAL CENTER OF AURORA

AURORA, COLORADO

PROJECT	REVISION
150922	00

DATE: 24.Mar.15
DRAWN BY: MJH
CHECKED BY: CPC
GON NO: 4285754
GON DT: 18.Mar.15

REVISION HISTORY:

SHEET

S2

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

ELECTRICAL PLAN

RECOMMENDED CEILING HEIGHT = 9'-6"

ELECTRICAL OUTLET LEGEND

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS. HEIGHT ABOVE FLOOR DETERMINED BY LOCAL CODES UNLESS OTHERWISE SPECIFIED.

△ DEDICATED TELEPHONE LINE(S) (SEE ELECTRICAL DETAIL ELEC-1 OR ELEC-67)

◭ NETWORK OUTLET (SEE ELECTRICAL DETAILS ELEC-83 AND ELEC-84 OR ELEC-87)

FEEDER TABLE – Brightspeed Series/ Optima CT520/540/660, Revolution EVO

- CALCULATIONS BASED UPON NOMINAL VOLTAGE, WIRE SIZE IN AWG.
- RECOMMENDED FEEDER SIZES FROM DISTRIBUTION TRANS. TO POWER DISTRIBUTION UNIT.
- THE GROUNDING CONDUCTOR ( ) WILL BE A 1/0 MINIMUM. THIS GROUND WILL RUN FROM THE EQUIPMENT BACK TO THE POWER SOURCE/MAIN GROUNDING POINT AND ALWAYS TRAVEL IN THE SAME CONDUIT WITH THE FEEDERS AND NEUTRAL.
- NEUTRAL MUST BE TERMINATED PRIOR TO OR INSIDE THE MAIN DISCONNECT PANEL AND NOT BROUGHT INTO THE POWER DISTRIBUTION UNIT.
- FOR A FULL SYSTEM UPS REFER TO ELECTRICAL DETAILS FOR UPS FEEDER WIRES.

RUN LENGTH IN FEET	POWER SUPPLY VOLTAGE											
	350–410 380		368–432 400		386–454 420		405–475 440		423–497 460		**442–518 480**	
	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND
50	2	(1/0)	2	(1/0)	3	(1/0)	3	(1/0)	3	(1/0)	**3**	**(1/0)**
100	2	(1/0)	2	(1/0)	3	(1/0)	3	(1/0)	3	(1/0)	**3**	**(1/0)**
150	2	(1/0)	2	(1/0)	3	(1/0)	3	(1/0)	3	(1/0)	**3**	**(1/0)**
200	2	(1/0)	2	(1/0)	3	(1/0)	3	(1/0)	3	(1/0)	**3**	**(1/0)**
250	1	(1/0)	1	(1/0)	2	(1/0)	2	(1/0)	2	(1/0)	**3**	**(1/0)**
300	1/0	(1/0)	1/0	(1/0)	1	(1/0)	1	(1/0)	2	(1/0)	**2**	**(1/0)**
350	2/0	(1/0)	1/0	(1/0)	1/0	(1/0)	1	(1/0)	1	(1/0)	**1**	**(1/0)**
400	2/0	(1/0)	2/0	(1/0)	1/0	(1/0)	1/0	(1/0)	1/0	(1/0)	**1**	**(1/0)**

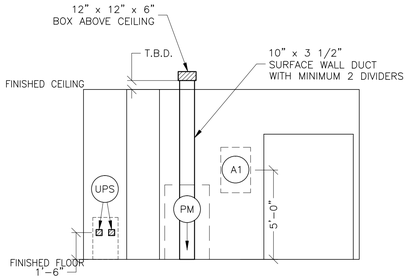
REV. DATE: 10.Jul.14

PLEASE SEE BELOW FOR ADDITIONAL REQUIRED CONDUIT RUNS AND SIZES.

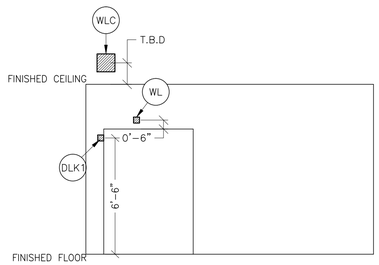
JUNCTION POINT NOTES

- ALL JUNCTION BOXES, CONDUIT, DUCT, DUCT DIVIDERS, SWITCHES, CIRCUIT BREAKERS, CABLE TRAY, ETC., ARE TO BE SUPPLIED AND INSTALLED BY CUSTOMERS ELECTRICAL CONTRACTOR.
- CONDUIT AND DUCT RUNS SHALL HAVE SWEEP RADIUS BENDS
- CONDUITS AND DUCT ABOVE CEILING OR BELOW FINISHED FLOOR MUST BE INSTALLED AS NEAR TO CEILING OR FLOOR AS POSSIBLE TO REDUCE RUN LENGTH.
- CEILING MOUNTED JUNCTION BOXES ILLUSTRATED ON THIS PLAN MUST BE INSTALLED FLUSH WITH FINISHED CEILING.
- ALL DUCTWORK MUST MEET THE FOLLOWING REQUIREMENTS:
  1. DUCTWORK SHALL BE METAL WITH DIVIDERS AND HAVE REMOVABLE, ACCESSIBLE COVERS.
  2. DUCTWORK SHALL BE CERTIFIED/RATED FOR ELECTRICAL POWER PURPOSES.
  3. DUCTWORK SHALL BE ELECTRICALLY AND MECHANICALLY BONDED TOGETHER IN AN APPROVED MANNER.
  4. PVC AS A SUBSTITUTE MUST BE USED IN ACCORDANCE WITH ALL LOCAL AND NATIONAL CODES.
- ALL OPENINGS IN ACCESS FLOORING ARE TO BE CUT OUT AND FINISHED OFF WITH GROMMET MATERIAL BY THE CUSTOMERS CONTRACTOR.
- GENERAL CONTRACTOR TO INSERT PULL CORDS FOR ALL CABLE RUN CONDUITS BETWEEN THE EQUIPMENT ROOM AND THE OPERATORS CONTROL ROOM.
- 10 FOOT PIGTAILS AT ALL JUNCTION POINTS.
- ALL WIRING MUST BE THHN OR TFN STRANDED COPPER THERMOPLASTIC 600 VOLT OR EQUIVALENT INSULATION. **ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.**
- GROUNDING IS CRITICAL TO EQUIPMENT FUNCTION AND PATIENT SAFETY. SITE MUST CONFORM TO WIRING SPECIFICATIONS SHOWN ON THIS PLAN.

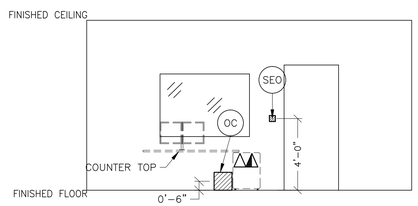
This sheet of drawings has not been reviewed for code compliance.



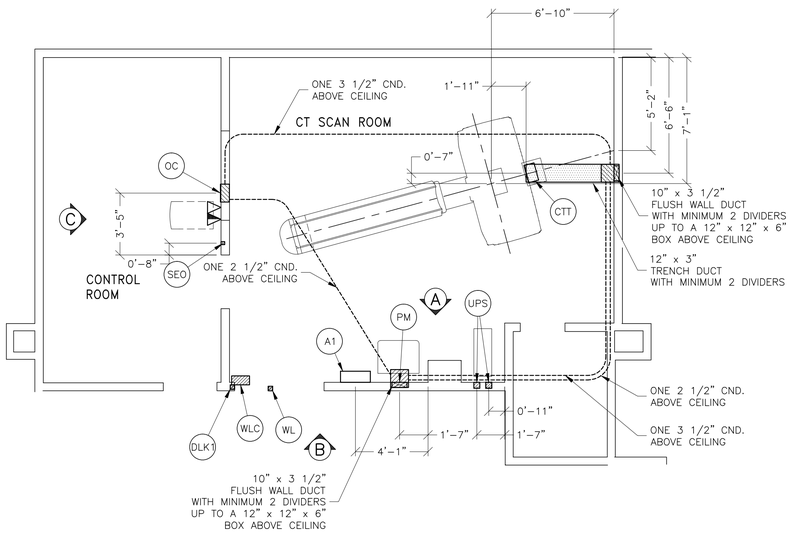
A



B



C



ADDITIONAL CONDUIT RUNS FOR ALL LIGHTSPEED, DISCOVERY, BRIGHTSPEED, OPTIMA SYSTEMS, REVOLUTION EVO, REVOLUTION DISCOVERY CT, HISPEED QX/i, & BRIVO 385 (BY CONTRACTOR)

CONDUITS REQUIRED FOR BASE SYSTEM (CONDUITS ARE LOCATED ABOVE CEILING)

REV DATE: 08.OCT.14

WL	TO	WLC	ONE 1/2" CND.
WLC	TO	PM	ONE 1/2" CND.
PM	TO	A1	ONE CND. AS REQ'D
A1	TO	SEO	ONE 1/2" CND.
A1	TO	FEEDER	ONE CND. AS REQ'D
WLC	TO	120-V 1Ø POWER	CND. AS REQ'D
DLK1	TO	PM	ONE 1/2" CND.

NOTE: SEE E2 PAGE FOR MAXIMUM RUN LENGTHS

CONDUITS REQUIRED FOR UPS (CONDUITS ARE LOCATED ABOVE CEILING)

REV DATE: 23.MAY.14

UPS	TO	A1	ONE 1 1/4" CND.
UPS	TO	PM	ONE 2" CND. (OPTIONAL) RUN DIRECT AS POSSIBLE. 12' MAX CABLE LENGTH

GE Project Manager: JACOB BRAVO
Telephone: 1-800-568-0329
THE GE HPI TECHNICAL SUPPORT GROUP IS AN ADDITIONAL RESOURCE THAT CAN PROVIDE ANSWERS FOR GENERAL GE PRODUCT SITING QUESTIONS AND CAN BE REACHED AT (877)-305-9677 OR MAILTO:HPITechCOE@ge.com

JUNCTION POINT DESCRIPTIONS

POINT	DESCRIPTION	QTY.	HARDWARE	DETAIL NO., SHT. E3
			THE FOLLOWING MATERIALS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER'S ELECTRICAL CONTRACTOR	
A1	MAIN DISCONNECT	1	PANEL – INCLUDED IN ORDER	ELEC-35
CTT	CT SCANNER	3	3 1/2 IN. DIA. CHASE NIPPLES	ELEC-25
DLK1	DOOR SWITCH (NEEDED ONLY IF REQUIRED BY STATE/ LOCAL CODES)	1 1	ROOM DOOR INTERLOCK LIMIT SWITCH IN FRAME – NORMALLY OPEN (24V) SINGLE GANG BOX	
OC	OPERATORS CONSOLE	1 1 1 1	SPLIT COVERPLATE 3 1/8 IN. DIA. CHASE NIPPLE 1 1/8 IN. DIA. CHASE NIPPLE 12 X 12 X 6 IN. BOX	ELEC-7
PM	POWER DISTRIBUTION UNIT	1 2 1 10 1	12 IN. OF GROMMET MATERIAL FOR A 3 X 3 IN. OPENING IN DUCT COVER 90 IN. 90 DEGREE CONNECTOR 6 FT. LENGTH OF 2 IN. FLEXIBLE METAL CONDUIT SUITABLE CONNECTORS 6 FT. LENGTH OF 1/2 IN. FLEXIBLE METAL CONDUIT	ELEC-30 ELEC-6 ELEC-2
SEO	EMERGENCY OFF	1	SINGLE GANG 2 1/2 IN. DEEP FLUSH MOUNTED JUNCTION BOX.	ELEC-16
UPS	UPS CABINET	1 1 1 2 10–1 1 1 1 1 1	COVERPLATE 2 IN. DIA. CHASE NIPPLE 4 X 4 X 4 IN. BOX 2 IN. DIA. BUSHING & LOCKNUT 1 IN. DIA. CHASE NIPPLE 1 IN. DIA. BUSHING & LOCKNUT (IF OPTIONAL 2 IN. CND IS USED, ADD THE FOLLOWING) 4 X 4 X 4 IN BOX COVERPLATE.	ELEC-8
WL	WARNING LIGHT	1	'X-RAY ON' INCANDESCENT LIGHT FIXTURE DO NOT USE FLUORESCENT FIXTURES GE CAT. NO. WX1ABWW-OF-XIU	
WLC	WARNING LIGHT CONTROLLER *AVAILABLE FROM GEHC. CALL 800-879-7925 OR LOCAL GE INSTALLATION PROJECT MGR.	1	E4502RL WARNING LIGHT CONTROL OR EQUIVALENT MAX 24V CONTROLLER	ELEC-72

CONTRACTOR SUPPLIED AND INSTALLED WIRING

ELECTRICAL CONTRACTOR SHALL RING OUT, TAG AND TERMINATE ALL WIRES AT BOTH ENDS.

WIRE RUN, FROM – TO	QUANTITY, WIRE SIZE/COLOR
WLC > 1 PHASE	1–NO. 14 BLACK, 1–NO. 14 WHITE, 1–NO. 14 GREEN
WL > WLC	2–NO. 14 BLACK, 1–NO. 14 RED, 1–NO. 14 WHITE
A1 > SEO	1–NO. 14 BLACK, 1–NO. 14 WHITE, 1–NO. 14 GREEN
A1 > PM	3–BLACK, 1 GREEN – REFER TO FEEDER TABLE
480V > A1	3 BLACK, 1 GREEN – REFER TO FEEDER TABLE
PM > DLK1	1–NO. 14 BLACK, 1–NO. 14 WHITE, 1–NO. 14 GREEN

RSN: *1024436*
Permit #: *15-976795 LT*

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

GE Healthcare
Healthcare Project Implementation – Design Center
Wisconsin
Healthcare Project Implementation – Design Center
Milwaukee,

SHEET TITLE: ELECTRICAL LAYOUT

MODALITY TYPE: OPTIMA CT660

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT ASSOCIATED WITH ELECTRICAL WORK. DETAILS OF ELECTRICAL SERVICE AND SYSTEMS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS APPROVED BY THE COMPANY. THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

This drawing is bosed on Sketch No.: S15-0204

PROJECT TITLE:
THE MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
150922	00

DATE: 24.Mar.15
DRAWN BY: MJH
CHECKED BY: CPC
GON NO: 4285754
GON DT: 18.Mar.15

REVISION HISTORY:

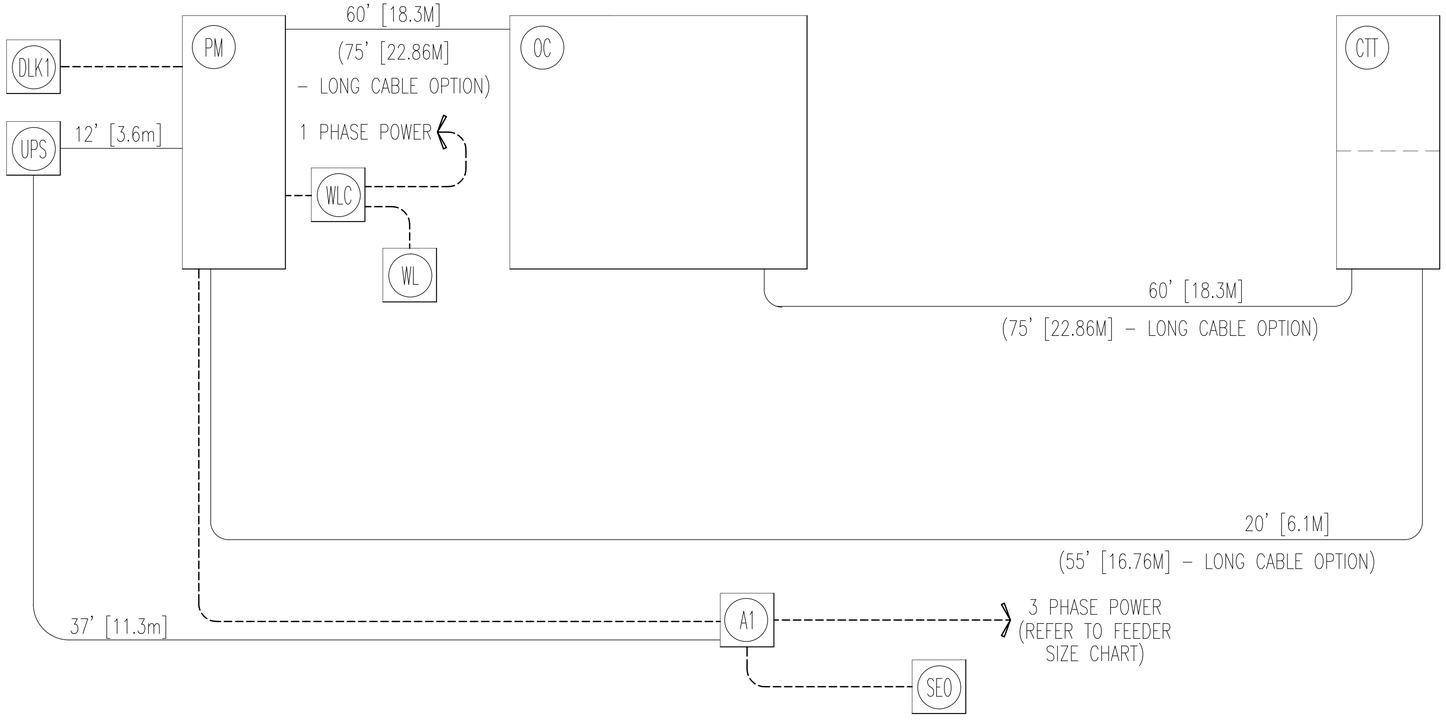
SHEET
E1

RQ – 150748 PIM R8

M2M-1002

INTERCONNECT DIAGRAM

This sheet of drawings has not been reviewed for code compliance.



RSN: *1024436*
Permit #: *15-976795 LT*

POWER SPECIFICATIONS

Optima CT660 Series/Revolution EVO

(REV. DATE 10.Jul.14)

VOLTAGE

PRIMARY SOURCE IS REQUIRED FOR ALL INSTALLATIONS. RANGE OF LINE VOLTAGES: NOMINAL LINE VOLTAGE OF 380 TO 480, 3 PHASE, 50 OR 60 Hz.

REQUIRED POWER SUPPLY: WYE CONNECTED

MAXIMUM DAILY VOLTAGE VARIATION MUST FALL WITHIN ONE OF THE RANGES IN TABLE A.

TABLE A ALLOWABLE INPUT VOLTAGES/ CURRENT DEMAND

NOMINAL VOLTAGE	ABSOLUTE RANGE	CURRENT (AMPS)		MINIMUM STANDARD OVERCURRENT PROTECTION
		MOMENTARY	CONTINUOUS	
380	342-418	152	30	110-A
400	360-440	144	29	110-A
420	378-462	137	27	100-A
440	396-484	131	26	100-A
460	414-506	126	25	90-A
480	**432-528**	**120**	**24**	**90-A**

(ALL CALCULATIONS BASED UPON NOMINAL VOLTAGE)

PHASE-BALANCE.

PHASE-TO-PHASE VOLTAGES MUST BE WITHIN +2 PERCENT OF THE LOWEST PHASE-TO-PHASE VOLTAGE. MAXIMUM ALLOWABLE TRANSIENT VOLTAGE SHOULD BE LIMITED TO 1500V PEAK.

VOLTAGE TRANSIENT OR IMPULSE ON THE INCOMING POWER MUST BE HELD TO A MINIMUM. TRANSIENTS CAUSED BY LIGHTNING, SURGES, LOAD SWITCHING, STATIC ELECTRICITY ETC. CAN CAUSE SCAN ABORTS OR, IN EXTREME INSTANCES, COMPONENT FAILURE IN THE COMPUTER SUBSYSTEM.

POWER DEMAND

CONTINUOUS POWER DEMAND = 20 KVA (MAX DEMAND = 100 KVA)

TABLE B MAXIMUM MOMENTARY POWER DEMAND.

DEMAND	CT
kVa *	100
POWER FACTOR AT	0.85

* DEMAND INCLUDES POWER FOR ENTIRE CT SYSTEM. LINE VOLTAGE REGULATION AT MAXIMUM POWER DEMAND MUST BE LESS THAN OR EQUAL TO 6 PERCENT.

DISTRIBUTION TRANSFORMER

FOR A SINGLE UNIT INSTALLATION, THE MINIMUM TRANSFORMER SIZE IS 125 KVA, WITH 2.4% RATED REGULATION AT UNITY POWER FACTOR. RESULTANT MAXIMUM ALLOWABLE FEEDER REGULATION IS 3.6%

NOTE: THE CT SYSTEM MUST NOT BE POWERED IN A MULTIPLE INSTALLATION WHERE FILM CHANGERS ARE USED. FILM CHANGERS UTILIZE A LARGE NUMBER OF HIGH POWERED CLOSELY SPACED EXPOSURES WHICH MAY COINCIDE WITH THE CT SCAN.

ELECTRICAL NOTES

NOTE 1: ALL WIRES SPECIFIED SHALL BE COPPER STRANDED, FLEXIBLE, THERMO-PLASTIC, COLOR CODED, CUT 10 FOOT LONG AT OUTLET BOXES, DUCT TERMINATION POINTS OR STUBBED CONDUIT ENDS. ALL CONDUCTORS, POWER, SIGNAL AND GROUND, MUST BE RUN IN A CONDUIT OR DUCT SYSTEM. ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS. WIRE RUNS MUST BE CONTINUOUS COPPER STRANDED AND FREE FROM SPLICES. **ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.**

NOTE 2: WIRE SIZES GIVEN ARE FOR USE OF EQUIPMENT. LARGER SIZES MAY BE REQUIRED BY LOCAL CODES.

NOTE 3: IT IS RECOMMENDED THAT ALL WIRES BE COLOR CODED, AS REQUIRED IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.

NOTE 4: CONDUIT SIZES SHALL BE VERIFIED BY THE ARCHITECT, ELECTRICAL ENGINEER OR CONTRACTOR, IN ACCORDANCE WITH LOCAL OR NATIONAL CODES.

NOTE 5: CONVENIENCE OUTLETS ARE NOT ILLUSTRATED. THEIR NUMBER AND LOCATION ARE TO BE SPECIFIED BY OTHERS. LOCATE AT LEAST ONE CONVENIENCE OUTLET CLOSE TO THE SYSTEM CONTROL, THE POWER DISTRITBUTION UNIT AND ONE ON EACH WALL OF THE PROCEDURE ROOM. USE HOSPITAL APPROVED OUTLET OR EQUIVALENT.

NOTE 6: GENERAL ROOM ILLUMINATION IS NOT ILLUSTRATED. CAUTION SHOULD BE TAKEN TO AVOID EXCESSIVE HEAT FROM OVERHEAD SPOTLIGHTS. DAMAGE CAN OCCUR TO CEILING MOUNTING COMPONENTS AND WIRING IF HIGH WATTAGE BULBS ARE USED. RECOMMEND LOW WATTAGE BULBS NO HIGHER THAN 75 WATTS AND USE DIMMER CONTROLS (EXCEPT MR). DO NOT MOUNT LIGHTS DIRECTLY ABOVE AREAS WHERE CEILING MOUNTED ACCESSORIES WILL BE PARKED.

NOTE 7: ROUTING OF CABLE DUCTWORK, CONDUITS, ETC., MUST RUN DIRECT AS POSSIBLE OTHERWISE MAY RESULT IN THE NEED FOR GREATER THAN STANDARD CABLE LENGTHS (REFER TO THE INTERCONNECTION DIAGRAM FOR MAXIMUM USABLE LENGTHS POINT TO POINT).

NOTE 8: CONDUIT TURNS TO HAVE LARGE, SWEEPING BENDS WITH MINIMUM RADIUS IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.

NOTE 9: A SPECIAL GROUNDING SYSTEM IS REQUIRED IN ALL PROCEDURE ROOMS BY SOME NATIONAL AND LOCAL CODES. IT IS RECOMMENDED IN AREAS WHERE PATIENTS MIGHT BE EXAMINED OR TREATED UNDER PRESENT, FUTURE, OR EMERGENCY CONDITIONS. CONSULT THE GOVERNING ELECTRICAL CODE AND CONFER WITH APPROPRIATE CUSTOMER ADMINISTRATIVE PERSONNEL TO DETERMINE THE AREAS REQUIRING THIS TYPE OF GROUNDING SYSTEM.

NOTE 10: THE MAXIMUM POINT TO POINT DISTANCES ILLUSTRATED ON THIS DRAWING MUST NOT BE EXCEEDED.

NOTE 11: PHYSICAL CONNECTION OF PRIMARY POWER TO GE EQUIPMENT IS TO BE MADE BY CUSTOMERS ELECTRICAL CONTRACTOR WITH THE SUPERVISION OF A GE REPRESENTATIVE. THE GE REPRESENTATIVE WOULD BE REQUIRED TO IDENTIFY THE PHYSICAL CONNECTION LOCATION, AND INSURE PROPER HANDLING OF GE EQUIPMENT.

NOTE 12: GEHC CONDUCTS POWER AUDITS TO VERIFY QUALITY OF POWER BEING DELIVERED TO THE SYSTEM. THE CUSTOMER'S ELECTRICAL CONTRACTOR IS REQUIRED TO BE AVAILABLE TO SUPPORT THIS ACTIVITY.

DIAGRAM KEY

- CUSTOMER/CONTRACTOR SUPPLIED WIRING. ROUTE IN ADEQUATE CONDUIT OR RACEWAY.
- GE FURNISHED CABLE RUNS. ROUTE IN EMPTY CONDUIT OR RACEWAY.
- 59' [18M] MAXIMUM RUN LENGTH BETWEEN JUNCTION POINTS. Feet [Meters]

GE Healthcare
Healthcare Project Implementation – Design Center
Wisconsin
Milwaukee,

SHEET TITLE: ELECTRICAL SPECIFICATIONS

MODALITY TYPE: OPTIMA CT660

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ANCILLARY ELECTRICAL SERVICES AS REQUESTED BY ARCHITECTS AND ENGINEERS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS APPROVED BY THE COMPANY. THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
THE MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
150922	00

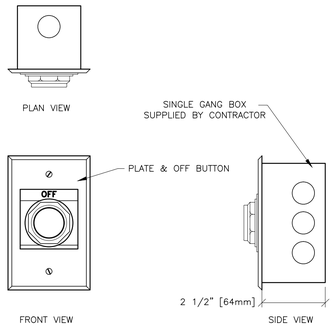
DATE: 24.Mar.15
DRAWN BY: MJH
CHECKED BY: CPC
GON NO: 4285754
GON DT: 18.Mar.15

REVISION HISTORY:

SHEET
E2

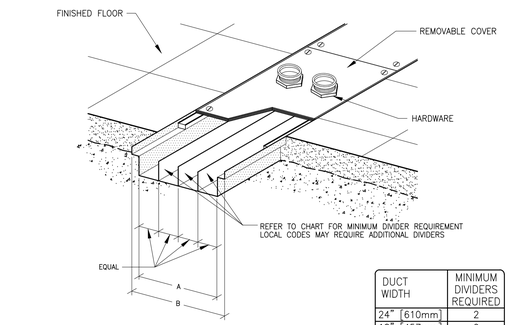
This drawing is based on Sketch No.: S15-0204 PIM R8 RQ – 150748

ELECTRICAL DETAIL — EMERGENCY OFF BUTTON — ELEC–16
REV. DATE: 05/14/09



DETAIL NOT TO SCALE

ELECTRICAL DETAIL — FLUSH FLOOR DUCT (TYPICAL) — ELEC–25
REV. DATE: 4/01/04



DUCT WIDTH	MINIMUM DIVIDERS REQUIRED
24" [610mm]	2
18" [457mm]	2
10" [254mm]	2
6" [152mm]	1
4" [102mm]	1

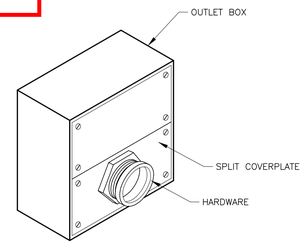
12" TRENCH DUCT: A = 10" B = 12"

18" TRENCH DUCT: A = 18" B = 20"

DETAIL NOT TO SCALE

ELECTRICAL DETAIL — BOX WITH SPLIT COVERPLATE (TYPICAL) — ELEC–7
REV. DATE: 09/30/94

This sheet of drawings has not been reviewed for code compliance.



DETAIL NOT TO SCALE

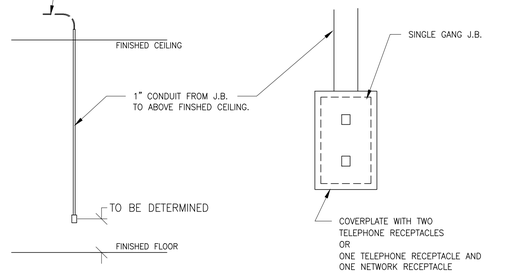
ELECTRICAL DETAIL — INSITE CONNECTION (TYPICAL) — ELEC–1
REV. DATE: 04/24/02

ONE OF THE FOLLOWING TWO SELECTIONS MUST BE INSTALLED AT THE LOCATION SHOWN ON THE ELECTRICAL PLAN (SHEET E1) FOR GE INSITE CONNECTION BASED UPON SYSTEM CONFIGURATION.

A) ONE INTERNET ACCESSIBLE VIRTUAL PRIVATE NETWORK (VPN) CONNECTION WITH A STATIC IP ADDRESS, AND ONE TELEPHONE LINE – DEDICATED–DIRECT–DIALING, VOICE GRADE.

OR

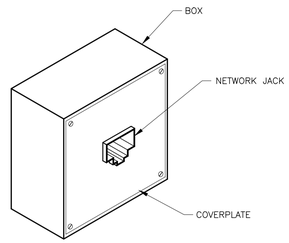
B) TWO TELEPHONE LINES – ONE DEDICATED DIRECT–DISTANCE–DIALING, VOICE GRADE AND ONE A DEDICATED DATA LINE.



ALL ITEMS ILLUSTRATED ARE TO BE FURNISHED AND INSTALLED BY CUSTOMER OR THEIR CONTRACTOR.

DETAIL NOT TO SCALE

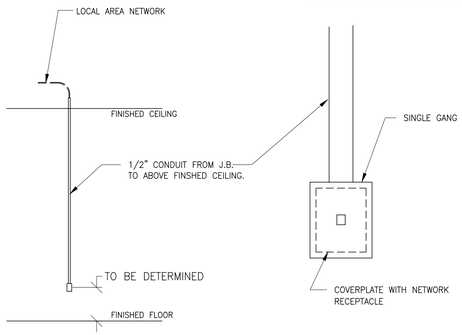
ELECTRICAL DETAIL — BOX WITH COVERPLATE AND NETWORK JACK — ELEC–83
REV. DATE: 10/06/98



DETAIL NOT TO SCALE

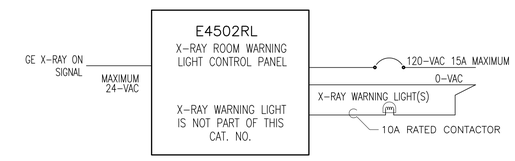
ELECTRICAL DETAIL — NETWORK CONNECTION (TYPICAL) — ELEC–84
REV. DATE: 03/06/04

○ FOR NUCLEAR SYSTEMS A DIRECT NETWORK CONNECTION IS TO BE MADE BETWEEN THE SYSTEM AND THE REVIEW WORKSTATION.



DETAIL NOT TO SCALE

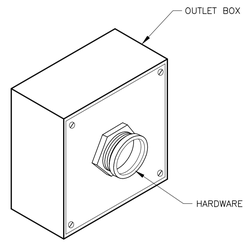
ELECTRICAL DETAIL — WARNING LIGHT DIAGRAM — ELEC–72
REV. DATE: 05/14/09



UNLESS SPECIFIED ON SHEET A1 AS BEING INCLUDED ON EQUIPMENT ORDER, ALL ITEMS ILLUSTRATED ARE TO BE FURNISHED AND INSTALLED BY CUSTOMER'S CONTRACTOR

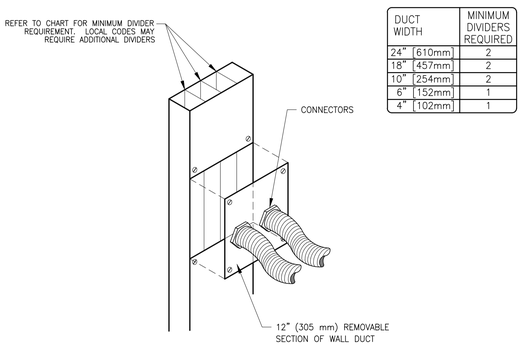
DRAWING NOT TO SCALE

ELECTRICAL DETAIL — BOX WITH COVERPLATE (TYPICAL) — ELEC–8
REV. DATE: 09/30/94



DETAIL NOT TO SCALE

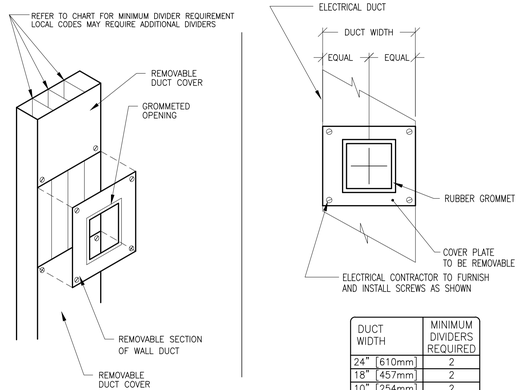
ELECTRICAL DETAIL — VERTICAL WALL DUCT WITH CONNECTORS (TYPICAL) — ELEC–30
REV. DATE: 4/01/04



DUCT WIDTH	MINIMUM DIVIDERS REQUIRED
24" [610mm]	2
18" [457mm]	2
10" [254mm]	2
6" [152mm]	1
4" [102mm]	1

DETAIL NOT TO SCALE

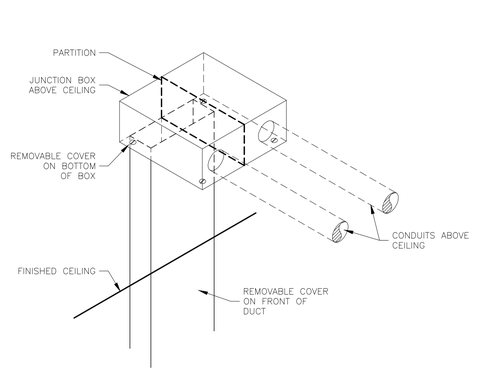
ELECTRICAL DETAIL — VERTICAL WALL DUCT (TYPICAL) — ELEC–6
REV. DATE: 03/19/04



DUCT WIDTH	MINIMUM DIVIDERS REQUIRED
24" [610mm]	2
18" [457mm]	2
10" [254mm]	2
6" [152mm]	1
4" [102mm]	1

DETAIL NOT TO SCALE

ELECTRICAL DETAIL — J.B. / WALL DUCT DETAIL (TYPICAL) — ELEC–2
REV. DATE: 02.Jan.15

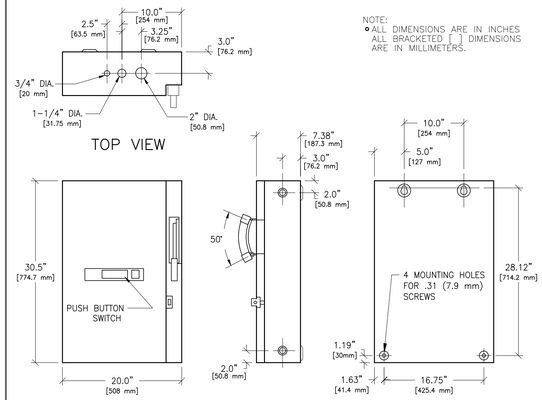


RSN: *1024436*
Permit #: *15-976795 LT*

DETAIL NOT TO SCALE

ELECTRICAL DETAIL — MAIN DISCONNECT — ELEC–35

NOTE:
○ ALL DIMENSIONS ARE IN INCHES
ALL BRACKETED [ ] DIMENSIONS ARE IN MILLIMETERS.



DETAIL NOT TO SCALE

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

GE Healthcare
Healthcare Project Implementation – Design Center
Wisconsin
Milwaukee,

SHEET TITLE: ELECTRICAL DETAILS
MODALITY TYPE: OPTIMA CT660

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ANCILLARY ELECTRICAL WIRING AND DEVICES AS REQUIRED BY THESE SYSTEMS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS APPROVED BY THE COMPANY. THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
THE MEDICAL CENTER OF AURORA
AURORA, COLORADO

This drawing is based on Sketch No.: S15-0204
PIM R8
RQ – 150748

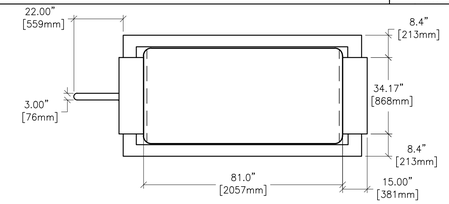
PROJECT	REVISION
150922	00
DATE:	24.Mar.15
DRAWN BY:	MJH
CHECKED BY:	CPC
GON NO:	4285754
GON DT:	18.Mar.15

REVISION HISTORY:

SHEET
E3

EQUIPMENT DETAIL
CT GANTRY SHIPPING DETAIL

B79–96MJ
REV. DATE: 10.JUL.14



PLAN VIEW

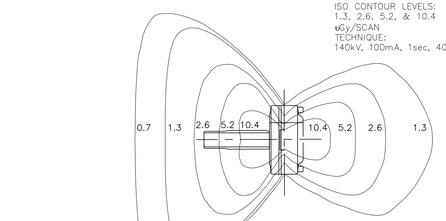
GANTRY DELIVERY SIZE OPTIONS

CONFIGURATION	DIMENSIONS LENGTH in. [mm]	WIDTH in. [mm]	HEIGHT in. [mm]	PERSONS NEEDED	ADDITIONAL PERSON HOURS	COMMENT
NORMAL SHIPPING CONFIGURATION	111 [2810]	51 [1290]	79 [2000]	2	0	VAN DRIVERS DELIVER EQUIPMENT TO ROOM. GE REPS. SUPERVISE AND ASSIST. HEIGHT IS WITH 1 IN. [25.4mm] CLEARANCE FROM FLOOR.
REMOVE PROTECTIVE SIDE RAILS	111 [2810]	40.9 [1039]	79 [2000]	2	0.5	WITH RAILS REMOVED, BE VERY CAREFUL TO PREVENT DAMAGE TO COVERS.
REMOVE COVERS REMOVE DOLLIES	77 [1970]	34 [860]	73 [1850]	2	1.5	THIS CONFIGURATION IS USED TO GET GANTRY INTO A 9 FT. [2.74m] ELEVATOR. DO NOT PUSH ON GANTRY COVERS. PUSH ONLY ON FRAME MEMBERS. AUX. DOLLIES PROVIDE 2.3 IN. [58mm] CLEARANCE FROM FLOOR. USE EXTREME CARE IN REMOVING, HANDLING AND INSTALLING COVERS. SEE PROCEDURE IN DIRECTION 5141177-100, BRIGHTSPEED ELITE, EDGE, AND EXCEL GENERAL SYSTEM INSTALLATION. SEE TWO PREVIOUS COMMENTS. SEE LIFTING PROCEDURE DIRECTION 5141177-100 BRIGHTSPEED ELITE, EDGE, AND EXCEL GENERAL SYSTEM INSTALLATION.

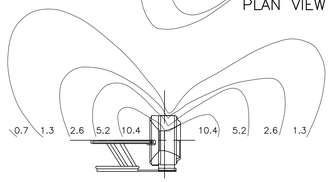
EQUIPMENT DETAIL
CT TYPICAL SCATTER SURVEY

B78–18A
REV. DATE: 12/27/10

ISO CONTOUR LEVELS:
1.3, 2.6, 5.2, & 10.4
mGy/SCAN
TECHNIQUE:
140kV, 100mA, 1sec, 40mm APERTURE



PLAN VIEW

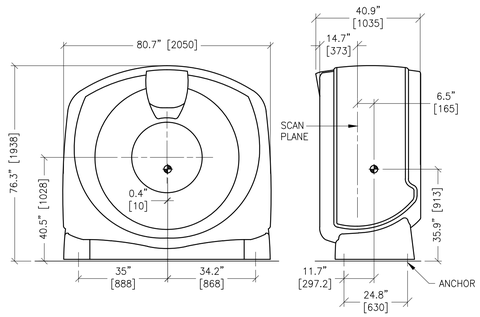


ELEVATION

EQUIPMENT DETAIL
CT GANTRY

B78–18B
REV. DATE: 10.Jul.14

CENTER OF GRAVITY



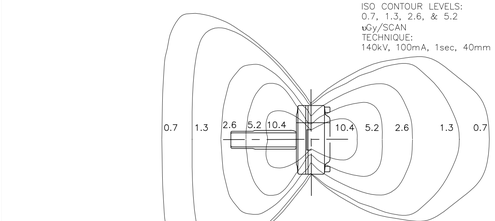
FRONT VIEW SIDE VIEW

DETAIL NOT TO SCALE

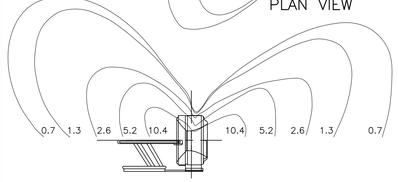
EQUIPMENT DETAIL
CT TYPICAL SCATTER SURVEY

B78–18D
REV. DATE: 12/27/10

ISO CONTOUR LEVELS:
0.7, 1.3, 2.6, & 5.2
mGy/SCAN
TECHNIQUE:
140kV, 100mA, 1sec, 40mm APERTURE



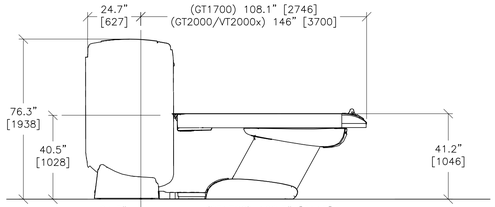
PLAN VIEW



ELEVATION

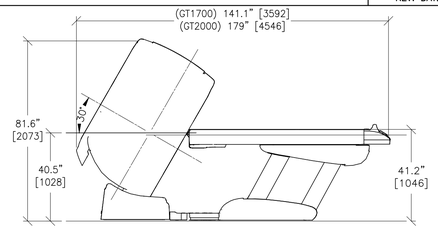
EQUIPMENT DETAIL
CT GANTRY AND TABLE LAYOUT – SIDE VIEW

B81–31
REV. DATE: 10.Jul.14



EQUIPMENT DETAIL
CT GANTRY SHOWN TILTED 30° – SIDE VIEW

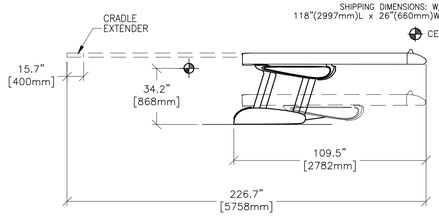
B81–33
REV. DATE: 05.Dec.11

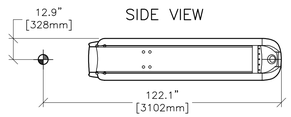


EQUIPMENT DETAIL
GT2000/VT2000x TABLE

B79–20
REV. DATE: 10.Jul.14

SHIPPING DIMENSIONS: W/ DOLLIES
118"(2997mm)L x 30"(762mm)W x 45"(1143mm)H
SHIPPING DIMENSIONS: W/O DOLLIES
118"(2997mm)L x 26"(660mm)W x 35"(889mm)H
CENTER OF GRAVITY



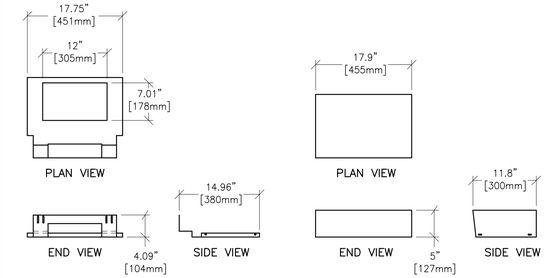


SIDE VIEW

PLAN VIEW

EQUIPMENT DETAIL
REAR CABLE COVER

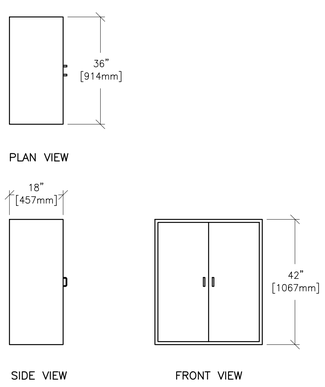
B8141
REV. DATE: 30.May.12



DETAIL NOT TO SCALE

EQUIPMENT DETAIL
TYPICAL STORAGE CABINET

M33005
REV. DATE: 02/26/09



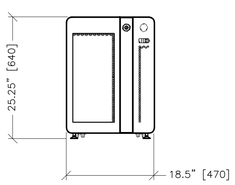
DETAIL NOT TO SCALE

EQUIPMENT DETAIL
T.I.O. OPERATORS CONSOLE – COMPUTER

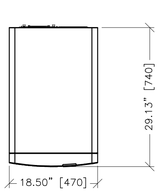
B81–05
REV. DATE: 20.Nov.12

- NOTE: DETAIL NOT TO SCALE
- UNITS IN INCHES BRACKETED DIMENSIONS EQUAL [MM]

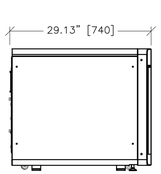
This sheet of drawings has not been reviewed for code compliance.



FRONT VIEW



TOP VIEW

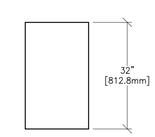


SIDE VIEW

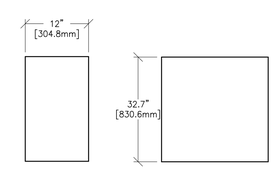
EQUIPMENT DETAIL
10KVA UPS SYSTEM

B79–99ZA
REV. DATE: 04/18/06

NOTE:
- INDICATES AIR FLOW
- INDICATES CENTER OF GRAVITY



PLAN VIEW



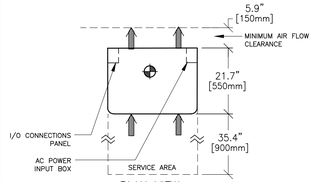
FRONT VIEW SIDE VIEW

UPS CABINET

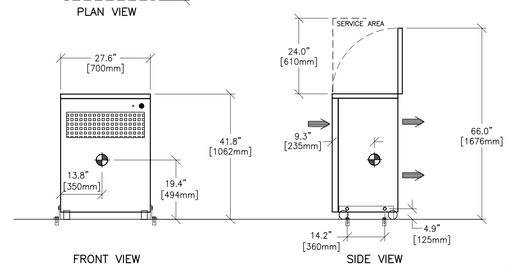
RSN: *1024436*
Permit #: *15-976795 LT*

EQUIPMENT DETAIL
POWER DISTRIBUTION UNIT

B78–58D
REV. DATE: 01/28/09



NOTE:
- INDICATES AIR FLOW
- INDICATES CENTER OF GRAVITY



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

GE Healthcare
Healthcare Project Implementation – Design Center
Milwaukee, Wisconsin

SHEET TITLE: EQUIPMENT DETAILS
MODALITY TYPE: OPTIMA CT660

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ARCHITECTURAL FEATURES AND UTILITY REQUIREMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR FINAL CONSTRUCTION DRAWINGS. THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
THE MEDICAL CENTER OF AURORA
AURORA, COLORADO

This drawing is based on Sketch No.: S15-0204
PIM R8
RQ – 150748

PROJECT	REVISION
150922	00
DATE:	24.Mar.15
DRAWN BY:	MJH
CHECKED BY:	CPC
GON NO:	4285754
GON DT:	18.Mar.15

REVISION HISTORY:

SHEET
D1

Drawing Index

These sheets are a document set and should not be separated.
Electrical information and references are contained on all sheets.

SITE READINESS	C1
EQUIPMENT LAYOUT (Equipment locations, heat loads, component weights, environmental specs)	A1
STRUCTURAL LAYOUT (Structural support/mounting locations for floor/wall/ceiling, wall support elevations)	S1
STRUCTURAL DETAILS (Floor and Ceiling loading information)	S2
ELECTRICAL LAYOUT (Contractor supplied wiring, interconnect methods, junction point locations and descriptions)	E1
ELECTRICAL SPECIFICATIONS (Maximum wiring run lengths, interconnect diagram, system power specifications)	E2
ELECTRICAL DETAILS	E3 THRU E4
EQUIPMENT DETAILS	D1

These drawings indicate the placement and interconnection of the listed equipment components. These drawings are not construction or site preparation drawings. Customer remains ultimately responsible for preparing the site to accommodate the operation of such equipment in compliance with GE Healthcare's written specifications and all applicable federal, state, and/or local requirements.

* REQUIRED REFERENCE *

Discovery XR656
Pre Installation Manual
5343949-1EN

A mandatory component of this drawing set is the GE Healthcare Pre Installation manual. Failure to reference the Pre Installation manual will result in incomplete documentation required for site design and preparation.

Pre Installation documents for GE Healthcare products can be accessed on the web at:

www.gehealthcare.com/siteplanning

GE Healthcare



RAD Site Planning

RSN: *1024436*
Permit #: *15-976795 LT*

imagination at work

Customer Site Readiness Requirements

- Any deviation from these drawings must be communicated in writing to and reviewed by your local GE Healthcare Installation Project Manager prior to making changes.
- Make arrangements for any rigging, special handling, or facility modifications that must be made to deliver the equipment to the installation site. If desired, your local GE Healthcare Installation Project Manager can supply a reference list of rigging contractors.
- New construction requires the following; 1. Secure area for equipment, 2. Power for drills and other test equipment, 3. Capability for image analysis, 4. Restrooms.
- Provide for refuse removal and disposal (e.g. crates, cartons, packing)
- Contact a radiation physicist or consultant to specify radiation containment requirements.

GE Equipment Delivery Requirements

The items on the GE Healthcare Site Readiness Checklist are REQUIRED to facilitate equipment delivery to the IS site. Equipment will not be delivered if these requirements are not satisfied.

GE Healthcare Site Readiness Checklist Rev 19

Before using this document ensure you have the latest Rev from MyWorkshop on DOC0422752

GEHC Global Order # : _____ Customer: _____
GEHC PMI : _____ FE / Installer: _____

The customer is responsible for proper site preparation regardless of any GEHC measurements/inspections/assessments.

	GEHC Minimum Requirements	Inspection Date: Storage Is item ready?	PMI Is item ready?	FE Is item ready?	Comments If "N", enter comments or action plan
1	**MR Magnet Delivery Requirements:** Ensure cryogen venting system is available for magnet connection as defined by GEHC Pre-Installation Manual (PIM) requirements, exhaust fan system is installed and operational, 480V power, and chilled water supply is available 24x7 that meets system cooling requirements. External connectivity is available for magnet monitoring and phone service is available during delivery. Surface mount vibromat installed where required. Magnet room final flooring is in place.				
2	**MR RF Screen Room Requirements:** RF Screen Room is tested with copy of Test Report, emailed to ISAdminCOEMB@ge.com, that it is compliant with GEHC specifications. Dock Bolt and magnet anchors (if applicable) installed using 2 part anchor. For HDx systems, blower box mount bolts installed by RF vendor using 2 part anchors				
3	**State Regulatory Requirements:** Facility registration number provided for states of Ill, KY, HI, RI, SC, TX. X-ray shielding plan and state acknowledgment letter provided to installer for AR, DC, NC, SC, CO & WA. **Site Drawing Requirements:** Final version of equipment network and antenna, installation drawings (including red lined versions) verified to match actual room and has been provided to installer.				
4	**Surface Penetration Requirements:** Customer/Contractor scheduled to provide required drilling or cutting into floors, ceilings, and walls; OR surface penetration permit available and posted in the room when GEHC will perform the work.				
5	**Pre-Delivery Route Requirements:** The equipment delivery route from the truck to the final destination within the facility has been reviewed with all key stakeholders to safely meet the minimum requirements for equipment access, and all communications/notifications have occurred. Arrangements have been made for special handling (elevator, rigging, floor protection, fork lift, rollback truck, etc).				
6	**Finished Room Requirements:** Rooms that will contain equipment, including storage areas not in scan suite, are dust free. Provisions taken to maintain a dust free room. Precautions must be taken to prevent dust from entering rooms containing equipment when construction is incomplete in adjacent areas. All walls primed (final coat not needed on Day 1). Shielding, doors, and windows are to be installed. No contractor work being done during or after the installation that will cause dust in the installation areas or potential equipment damage. Room security to prevent unauthorized access and theft has been discussed with customer. The customer is aware of these security issues, implications and responsibility. For Storage: Room must meet PIM requirements for storage.				
7	**Electrical Requirements:** Lockable (LOTO) Main Disconnect Panel (MDP) is installed per GE guidelines and system power is available. Conduits, electrical cable ducting/dividers/cable trays, and access flooring is installed in proper location and height. Surface floor duct and load-side wires can be installed at time of system installation. Validate outlet location and requirements meet specifications for device/equipment.				
8	**HVAC Requirements:** The HVAC/Chilled Water systems designed to maintain the environment per spec/PIM is at running state and appears to provide the desired environmental conditions including location of vents, temperature and humidity for system operation.				
9	**Flooring Requirements:** Floor is clean and prepared for final floor covering. Floor levelness/flatness is measured and within tolerance, and there are no visible defects per GEHC specifications. Confirm customer anchoring plan aligns with designed floor thickness. Final flooring installed where required for network racks.				
10	**Ceiling Requirements:** Unistrut (or equivalent) location, levelness and spacing is measured (or vendor confirmed) and consistent with the requirement of the installation drawings. Ensure unistrut and rails are not used as mounting surfaces. Ceiling grid is installed. Permanent lighting is installed and operational. HVAC diffusers are installed and connected to ductwork. Ceiling tiles installed per PMI discretion.				
11	**Staging Requirements:** Space has been identified to support the active installation process only. This area meets PIM/project book requirements. Storage space has been identified, if needed. This secured space would be used to store equipment indefinitely. If offsite, transportation plan has been developed at customer expense. This space must meet PIM requirements.				
12	**Network Connectivity:** Hardwire for network connectivity(network drop) is in place prior to delivery with specified network firewall configuration where required. Site Surveys for wireless mobile XR units have been completed.				
13	**Medical Gases Requirements:** Systems (hard piped or portable) in place to allow testing and calibration of equipment (anesthesia), including ventilation.				

GE Healthcare
Healthcare Project Implementation – Design Center
Milwaukee, Wisconsin
Copyright 2009 General Electric Company – Proprietary to GE

SHEET TITLE: SITE READINESS
MODALITY TYPE: DISCOVERY XR656

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT ASSOCIATED WITH THIS PROJECT AND TO ASSIST IN PLANNING FOR UTILITY SERVICES. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES. NEITHER GE HEALTHCARE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE: RAD ROOM
THE MEDICAL CENTER OF AURORA
AURORA, COLORADO

This drawing is based on Sketch No.: s15-0206
PIM R8
RQ – 150750

PROJECT	REVISION
150938	00

DATE: 24.Mar.15
DRAWN BY: RET
CHECKED BY: MKL
GON NO: 4281011
GON DT: 18.Mar.15

REVISION HISTORY:

SHEET
C1

rad0000-28-feb-2013

GE EQUIPMENT LISTING

EQUIPMENT ON ORDER FROM GE HEALTHCARE, INSTALLED BY GE HEALTHCARE, PER GON 4281011 DATED 18.Mar.15

NOTE: LOCAL CONDITIONS MAY DICTATE THAT ITEMS IDENTIFIED IN THIS CATEGORY BE INSTALLED BY OTHERS.

EQUIPMENT CROSS REFERENCE CHART

SEISMIC STATUS: P = PREAPPROVAL; C = CALCULATIONS/PENDING APPROVAL; S = SPECIFICATIONS ONLY

ITEM NO.	QUANTITY ORDERED	ITEM DESCRIPTION (* = EXISTING/REINSTALL)	WEIGHT	HEAT OUTPUT (PER HOUR)	DETAIL NO.	STRC PLAN	ELEC PLAN	SEISMIC STATUS
1	1	XT RADIOGRAPHIC SUSPENSION WITH INBOARD MOUNTING.	906 lbs	105 btu	B2004C	B20 041	XTS1	C
2	1	CABLE DRAPE RAIL.	180 lbs			B20 079		-
3	2	LONGITUDINAL STATIONARY RAIL FOR XT SUSPENSION	68 lbs			B20 041		C
4	1	PARTIAL SYSTEM UNINTERRUPTIBLE POWER SUPPLY	26 lbs			.	UPS	-
5	1	GRID HOLDER <FIELD VERIFY IDEAL LOCATION>	30 lbs		B0557W	B05 S7K		S
6	1	TETHER INTERFACE BOX	15 lbs	10 btu	B8126	-	TIB	-
7	1	DONGLE	4 lbs		B8137	-	D	-
8	1	XR 656 DIGITAL ELEVATING TABLE	992 lbs	372 btu	B0557U	-	RT	S
9	1	SYSTEM CABINET	705 lbs	2440 btu	B8125	-	SKL	S
10	1	LONGITUDINAL DRIVE BELT 1 IN. WIDE	74 lbs			-		-
11	2	ANCHOR RAILS				-		-
12	1	OPERATORS CONSOLE	79 lbs	604 btu	B6564E B6564F B8138 CG10CB	-	WBC1	-
13	1	DIGITAL CHEST UNIT	595 lbs	136 btu	B0557D	-	WLS	C

THE FOLLOWING ITEMS, WHICH HAVE BEEN ORDERED FROM GE HEALTHCARE, ARE TO BE INSTALLED BY THE CUSTOMER OR HIS CONTRACTOR.

ITEM NO.	QUANTITY ORDERED	ITEM DESCRIPTION (* = EXISTING/REINSTALL)	WEIGHT	HEAT OUTPUT (PER HOUR)	DETAIL NO.	STRC PLAN	ELEC PLAN	SEISMIC STATUS
50	1	EMERGENCY OFF SWITCH <NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES>				-	SED	-
51	1	MAIN DISCONNECT PANEL	79 lbs			-	A	-

SCALE: 1/4" = 1'-0" EQUIPMENT LAYOUT RECOMMENDED CEILING HEIGHT = 9'-6"

This equipment layout indicates the placement and interconnection of the indicated equipment components. There may be federal, state, and/or local requirements that could impact the placement of these components. It remains the Customer's responsibility for ensuring the site and final equipment placement complies with all applicable federal, state, and/or local requirements.

State-Acknowledged X-Ray Shielding Design

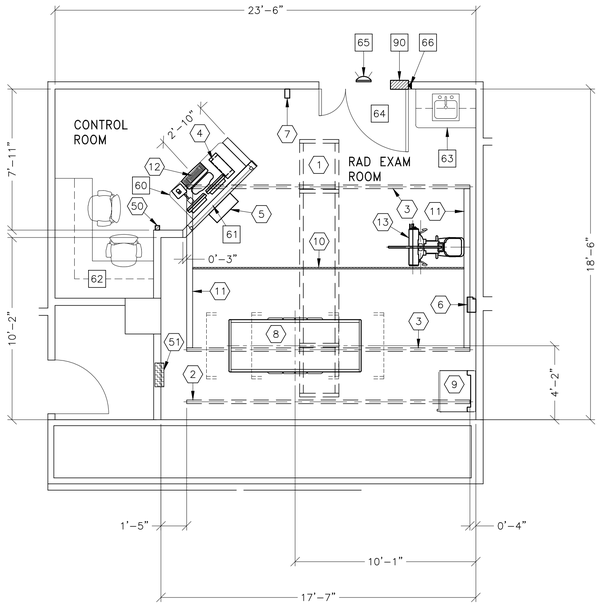
State-Acknowledged Shielding Design Plan # N/A
Date: N/A by: N/A

Physicist's name: Nathan Busse, M.S., DABR, QE #238
Design date: 27.Feb.15

NOTE: GE HEALTHCARE is listing the State-Acknowledged X-Ray Shielding Design Plan above only for customer's convenience. Listing the design does not relieve the customer of any of its obligations under any contract with GE HEALTHCARE.

This sheet of drawings has not been reviewed for code compliance.

CAUTION:
SEE PRE-INSTALLATION MANUAL #5343949-1EN FOR REQUIRED CLEARANCE AREA OF THE OTS LONGITUDINAL DRIVE BELT ASSEMBLY.



THE FOLLOWING TOMO & IMAGE PASTING APPLICATIONS ARE POSSIBLE WITH THE LAYOUT AS SHOWN IN THESE DRAWINGS

NOTE: NOT ALL TOMO/IMAGE PASTING OPTIONS MAY BE INCLUDED IN YOUR EQUIPMENT ORDER. PLEASE CONSULT YOUR EQUIPMENT ORDER OR QUOTE FOR VALIDATION.

	YES	NO
WALLSTAND TOMO AND/OR IMAGE PASTE	✓	
TABLE TOMO AND/OR IMAGE PASTE	✓	
WALLSTAND CROSS-TABLE TOMO	✓	
EXTENDED WALLSTAND TOMO		✓

GE Project Manager: JACOB BRAVO
Telephone: 1-800-568-0329
"THE GE HEALTHCARE TECHNICAL SUPPORT GROUP IS AN ADDITIONAL RESOURCE THAT CAN PROVIDE INSPIRED FOR GENERAL GE PRODUCT APPLICATIONS AND CAN BE REACHED AT THE ABOVE NUMBER."

ANCILLARY ITEMS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
60	COUNTER TOP FOR EQUIPMENT- PROVIDE GROMMETED OPENINGS AS REQUIRED TO ROUTE INTERCONNECT CABLES TO RACEWAY BELOW COUNTERTOP.
61	CONTROL WALL, 7 FT. HIGH WITH LEAD GLASS VIEWING WINDOW.
62	COUNTER TOP WITH WALL CABINETS
63	COUNTER TOP WITH SINK, BASE AND WALL CABINETS
64	MINIMUM DOOR OPENING FOR EQUIPMENT DELIVERY IS 36 IN. W x 66.9 IN. H (914mm x 1700mm), CONTINGENT ON A 96 IN. (2438mm) CORRIDOR WIDTH NOTE: IMAGE PASTE OPTION REQUIRES A 80.9 IN H (2050mm) HIGH OPENING FOR ACCESS.
65	X-RAY ON WARNING LIGHT - AVAILABLE FROM GE SUPPLY CALL: 800-200-9760 GE CAT. NO. WX1ABWW-DF-X1U
66	DOOR LIMIT SWITCH <NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES>

THE FOLLOWING ITEMS ARE AVAILABLE FROM GE HEALTHCARE TECHNOLOGIES. CONTACT YOUR LOCAL GE HEALTHCARE SERVICE REPRESENTATIVE FOR PRICING AND AVAILABILITY.

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
90	X-RAY ROOM WARNING LIGHT CONTROL PANEL REFERENCE JUNCTION POINT 'XRLC' ON SHEET 'E1' FOR DETAILED DESCRIPTION -E4502RL FOR WARNING LIGHT CONTROL ONLY.

GENERAL SPECIFICATIONS

- THE REQUIRED CEILING HEIGHT INDICATED ON THESE PLANS IS TO ENSURE EQUIPMENT FUNCTION IS NOT INHIBITED. CONSULT WITH YOUR LOCAL GEHC IS SPECIALIST REGARDING ACCEPTABILITY OF OTHER CEILING HEIGHTS.
- CHECK ALL DOOR OPENINGS AND HALLWAYS FROM DELIVERY LOCATION TO WHERE EQUIPMENT IS TO BE INSTALLED TO ENSURE THE ROUTE PHYSICALLY AND STRUCTURALLY WILL ACCOMODATE THE EQUIPMENT AS SHIPPED.
- RADIATION PROTECTION REQUIREMENTS ARE NOT INDICATED ON THIS PLAN. WHERE NEEDED PER NATIONAL OR LOCAL CODE THEY SHALL BE SPECIFIED BY A QUALIFIED RADIOLOGICAL PHYSICIST.
- THE DEVELOPMENT OF THE EQUIPMENT LAYOUT, ROOM DIMENSIONS, MECHANICAL AND ELECTRICAL SUGGESTIONS IS PREDICATED UPON THE BEST INFORMATION OBTAINABLE FROM THE SITE, COUPLED WITH THE CUSTOMER'S KNOWN DESIRES. ARCHITECTURAL OR ELECTRICAL CHANGES INCLUDING RELOCATION OF EQUIPMENT ILLUSTRATED ON THIS DRAWING IS ALLOWED ONLY WITH NOTIFICATION, IN WRITING, AND REVIEW BY GEHC SERVICE DEPARTMENT. EQUIPMENT OPERATION, SERVICEABILITY, AND RESTRICTING CABLE LENGTHS, ETC., MAKE THIS ESSENTIAL FOR A PROPER IS. GEHC RESERVES THE RIGHT TO MAKE ON THE JOB CHANGES BECAUSE OF CUSTOMER REQUIREMENTS AND/OR OBSTACLES IN CONSTRUCTION, ETC..
- ALL WORK TO BE IN COMPLIANCE WITH NATIONAL AND LOCAL BUILDING SAFETY CODES.
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM

SITE ENVIRONMENT SPECIFICATIONS

- AMBIENT OPERATING TEMPERATURE: 59 TO 95 DEGREES (F), MAXIMUM ALLOWABLE TEMPERATURE CHANGE OF 10 DEGREES (C)/HOUR.
- HUMIDITY: REFER TO PREINSTALLATION MANUAL FOR THE EQUIPMENT ILLUSTRATED ON THIS DRAWING.
- REFER TO PREINSTALLATION MANUAL FOR THE EQUIPMENT ILLUSTRATED ON THIS DRAWING
- THE ENVIRONMENT FOR THE ELECTRONICS CABINET MUST BE CONTROLLED SO THE ABOVE RESTRICTIONS ARE NOT EXCEEDED.
- DO NOT RESTRICT THE AIR INTAKE AT THE LOWER FRONT OR AIR EXHAUST AT THE TOP OF THE ELECTRONICS CABINETS.

MAGNETIC INTERFERENCE SPECIFICATIONS

DIGITAL FLAT PANEL MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 1 GAUSS TO GUARANTEE SPECIFIED IMAGING PERFORMANCE.

X-RAY TUBES MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO GUARANTEE SPECIFIED PERFORMANCE.

SYSTEM ELECTRONICS MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO GUARANTEE DATA INTEGRITY.

OPERATORS CONSOLE EQUIPMENT MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO OBTAIN SPECIFIED GEOMETRIC LINEARITY.

RSN: *1024436*
Permit #: *15-976795 LT*

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

GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin

SHEET TITLE: EQUIPMENT LAYOUT
MODALITY TYPE: DISCOVERY XR656

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT. THIS ASSOCIATED ELECTRICAL AND MECHANICAL REQUIREMENTS FOR INSTALLATION OF SYSTEMS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS VERIFIED. THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
RAD ROOM
THE MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
150938	00

DATE: 24.Mar.15
DRAWN BY: RET
CHECKED BY: MKL
GON NO: 4281011
GON DT: 18.Mar.15

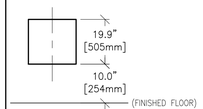
REVISION HISTORY:

SHEET
A1

This drawing is based on Sketch No.: s15-0206
PIM R8
RQ - 150750

TYPICAL WALL SUPPORT ELEVATIONS

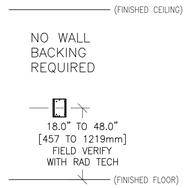
S107



SUPPORT FOR
GRID HOLDER

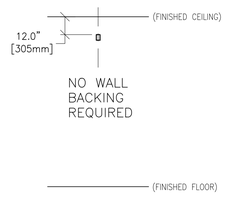
(NOT TO SCALE)

S127



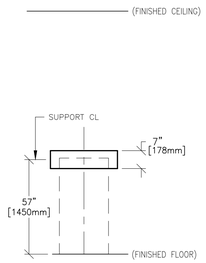
TIB ELEVATION
(NOT TO SCALE)

S128



DONGLE ELEVATION
(NOT TO SCALE)

S130



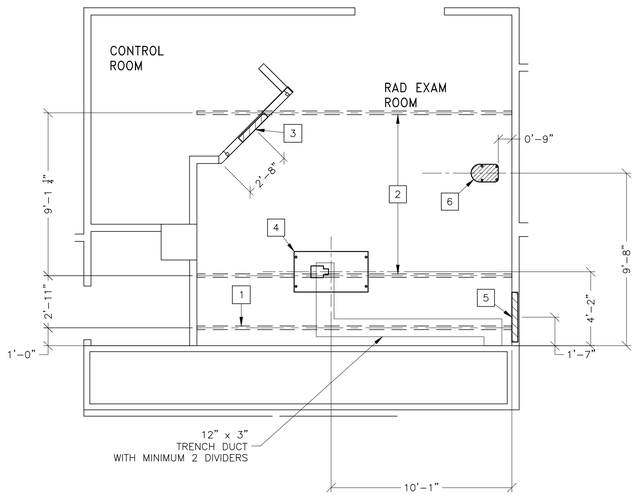
SUPPORT FOR
SYSTEM CABINET
(NOT TO SCALE)

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

STRUCTURAL LAYOUT

RECOMMENDED CEILING HEIGHT = 9'-6"

This sheet of drawings has not been reviewed for code compliance.



GE Project Manager: JACOB BRAVO
Telephone: 1-800-568-0329
THE GE HMI TECHNICAL SUPPORT GROUP IS AN ADDITIONAL RESOURCE THAT CAN PROVIDE ANSWERS FOR GENERAL GE PRODUCT SIZING QUESTIONS AND CAN BE REACHED AT (800)-568-0329 OPTION 1 OPTION 2

STRUCTURAL SUPPORT METHODS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
1	UNISTRUT OR EQUIVALENT SUPPORT IN CEILING FOR FASTENING CABLE DRAPE RAIL. SUPPORTS TO RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL, RUN WALL TO WALL, BE PARALLEL, SQUARE, AND IN THE SAME HORIZONTAL PLANE, FLUSH WITH THE FINISHED CEILING. RAILS ARE MOUNTED TO THESE SUPPORTS EVERY 8'-2" AND REQUIRE 50 LBS. PER BOLT LOAD. METHODS OF SUPPORT THAT PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE SHOULD BE FAVORED. DO NOT USE SCREW ANCHORS IN DIRECT TENSION.
2	UNISTRUT OR EQUIVALENT SUPPORT IN CEILING FOR FASTENING CEILING SUPPORTED EQUIPMENT. SUPPORTS TO RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL, RUN WALL TO WALL, BE PARALLEL, SQUARE, AND IN THE SAME HORIZONTAL PLANE, FLUSH WITH THE FINISHED CEILING. RAILS ARE MOUNTED TO THESE SUPPORTS EVERY 8'-2" AND REQUIRE 350 LBS. <597 LBS. IN SEISMIC REGIONS) PER BOLT LOAD. METHODS OF SUPPORT THAT PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE SHOULD BE FAVORED. DO NOT USE SCREW ANCHORS IN DIRECT TENSION.
3	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S107, FOR GRID HOLDER.
4	FLOOR CONTACT AREA FOR TABLE
5	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S130, FOR SYSTEMS CABINET
6	FLOOR CONTACT AREA FOR CHEST READER

STRUCTURAL NOTES

- ALL STEEL WORK AND PARTS NECESSARY TO SUPPORT CEILING MOUNTED TUBE HANGER OR OTHER EQUIPMENT ARE TO BE SUPPLIED BY THE CUSTOMER OR HIS CONTRACTORS. THE UNISTRUT OR EQUIVALENT STRUCTURE SHOULD RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL, RUN WALL TO WALL, BE PARALLEL, SQUARE AND IN THE SAME HORIZONTAL PLANE FLUSH WITH FINISHED CEILING. THE SYSTEM IS TO BE CROSS BRACED VERTICALLY, HORIZONTALLY AND DIAGONALLY TO ALLOW NO MOVEMENT AND A MAXIMUM OF 1,58mm(1/16") DEFLECTION.
  CLOSURE STRIPS SHALL BE PROVIDED FOR AREAS OF UNISTRUT EXPOSED AND WITHOUT MOUNTING UNITS.
- METHODS OF SUPPORT FOR THE STEELWORK THAT WILL PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE CONSTRUCTION SHOULD BE FAVORED. DO NOT USE CONCRETE OR MASONRY ANCHORS IN DIRECT TENSION.
- ALL UNITS THAT ARE WALL MOUNTED OR WALL SUPPORTED ARE TO BE PROVIDED WITH SUPPORTS WHERE NECESSARY. WALL SUPPORTS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER OR HIS CONTRACTORS. SEE PLAN AND DETAIL SHEETS FOR SUGGESTED LOCATIONS AND MOUNTING HOLE LOCATIONS.
- ALL CEILING MOUNTED FIXTURES, AIR VENTS, SPRINKLERS, ETC. TO BE FLUSH MOUNTED, OR SHALL NOT EXTEND MORE THAN 6,35mm (1/4") BELOW THE FINISHED CEILING.
- CONTROL WALLS WITH TUBE HANGER PASSAGE ABOVE SHALL BE CONSTRUCTED TO 2130mm (7'-0") HIGH.
- FLOOR SLABS ON WHICH EQUIPMENT IS TO BE INSTALLED MUST BE LEVEL TO 3,17mm (1/8") in 3050mm (10'-0")
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM.
- CUSTOMERS CONTRACTOR MUST PROVIDE ALL PENETRATIONS IN POST TENSION FLOORS.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL ANY NON-STANDARD ANCHORING. DOCUMENTS FOR STANDARD ANCHORING METHODS ARE INCLUDED WITH GE EQUIPMENT DRAWINGS FOR GEOGRAPHIC AREAS THAT REQUIRE SUCH DOCUMENTATION.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL HARDWARE FOR "THROUGH THE FLOOR" ANCHORING AND/OR ANY BRACING UNDER ACCESS FLOORS. THIS CONTRACTOR MUST ALSO PROVIDE FLOOR DRILLING THAT CANNOT BE COMPLETED BECAUSE OF AN OBSTRUCTION ENCOUNTERED WHILE DRILLING BY THE GE INSTALLER SUCH AS REBAR ETC.
- IT IS THE CUSTOMER'S RESPONSIBILITY TO PERFORM ANY FLOOR OR WALL PENETRATIONS THAT MAY BE REQUIRED. THE CUSTOMER IS ALSO RESPONSIBLE FOR ENSURING THAT NO SUBSURFACE UTILITIES (E.G., ELECTRICAL OR ANY OTHER FORM OF WIRING, CONDUITS, PIPING, DUCT WORK OR STRUCTURAL SUPPORTS (I.E. POST TENSION CABLES OR REBAR)) WILL INTERFERE OR COME IN CONTACT WITH SUBSURFACE PENETRATION OPERATIONS (E.G. DRILLING AND INSTALLATION OF ANCHORS/SCREWS) PERFORMED DURING THE INSTALLATION PROCESS. TO ENSURE WORKER SAFETY, GE INSTALLERS WILL PERFORM SURFACE PENETRATION OPERATIONS ONLY AFTER THE CUSTOMER'S VALIDATION AND COMPLETION OF THE "GE SURFACE PENETRATION PERMIT"

RSN: *1024436*
Permit #: *15-976795 LT*

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

GE Healthcare
Healthcare Project Implementation – Design Center
Wisconsin
Milwaukee,

SHEET TITLE: STRUCTURAL LAYOUT
MODALITY TYPE: DISCOVERY XR656

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED FACILITIES AND SERVICES. DETAILS AND DIMENSIONS ARE APPROXIMATE. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES. GE HEALTHCARE AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
RAD ROOM
THE MEDICAL
CENTER OF AURORA
AURORA, COLORADO

This drawing is based on Sketch No.: s15-0206

PROJECT	REVISION
150938	00

DATE: 24.Mar.15
DRAWN BY: RET
CHECKED BY: MKL
GON NO: 4281011
GON DT: 18.Mar.15

PIM R8
RQ – 150750

REVISION HISTORY:

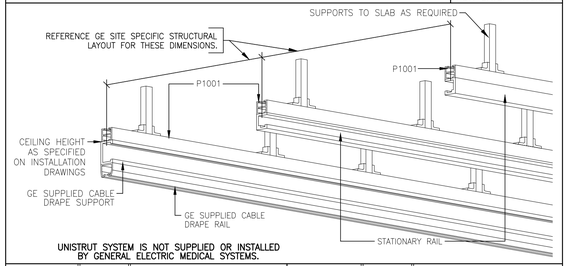
SHEET
S1

SUPPORT DETAIL

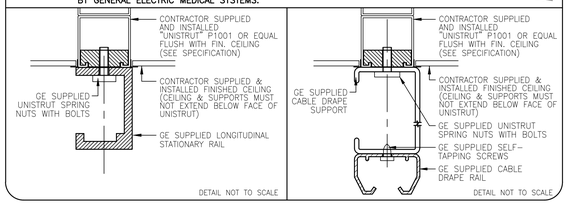
XT RADIOGRAPHIC SUSPENSION, INBOARD MOUNTING

B20–079

REV. DATE: 11.Jun.12



UNISTRUT SYSTEM IS NOT SUPPLIED OR INSTALLED BY GENERAL ELECTRIC MEDICAL SYSTEMS.

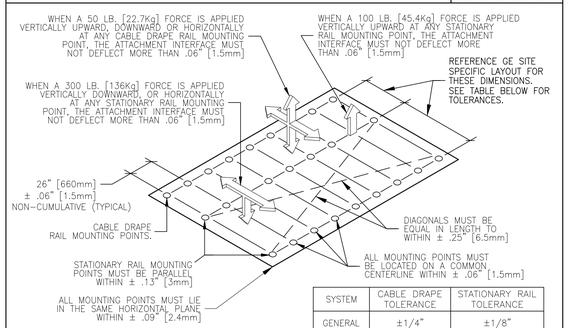


SUPPORT DETAIL

XT RADIOGRAPHIC SUSPENSION, INBOARD MOUNTING

B20–041

REV. DATE: 02.Feb.15



SYSTEM	CABLE DRAPE TOLERANCE	STATIONARY RAIL TOLERANCE
GENERAL	±1/4"	±1/8"
XR656, XR656 PLUS, XR646	±1/8"	±1/8"

RAIL MUST BE SUPPORTED BY A .5" [13mm] BOLT EVERY 26" [660mm]. MAXIMUM LOAD PER BOLT IS 350 LBS [159Kg]. HOWEVER, EACH MOUNTING BOLT MUST NOT "PULL OUT" OR OTHERWISE FAIL UNDER A VERTICALLY DOWNWARD DEAD LOAD OF 1400 LBS [636Kg].

UNISTRUT SYSTEM IS NOT SUPPLIED OR INSTALLED BY GE HEALTHCARE.

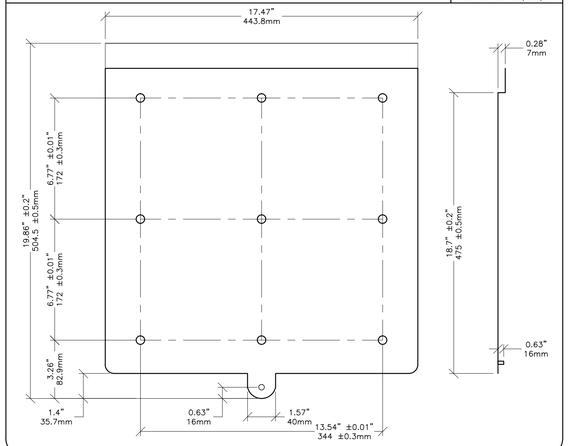
DETAIL NOT TO SCALE

SUPPORT DETAIL

GRID HOLDER WALL MOUNT PANEL

B0557K

REV. DATE: 05/24/10

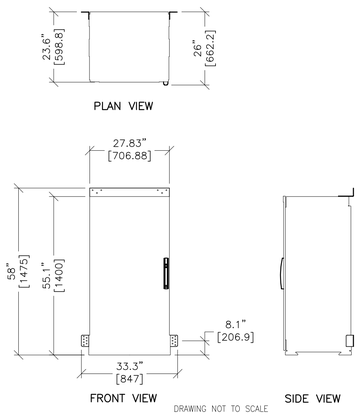


STRUCTURAL DETAIL

SYSTEM CABINET

B5032

REV. DATE: 05.Dec.11

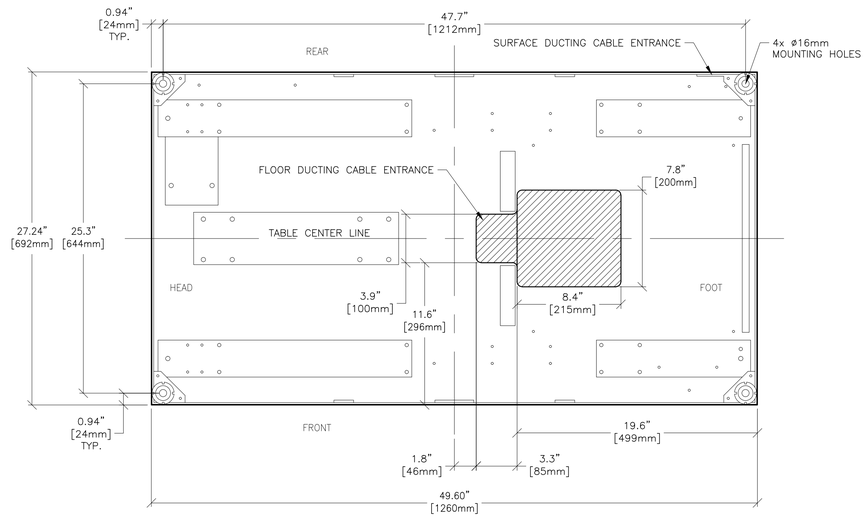


DRAWING NOT TO SCALE

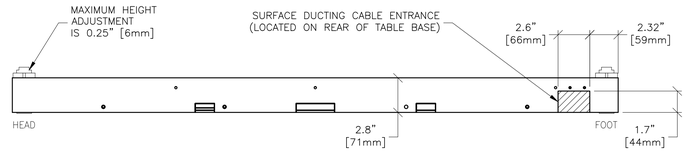
FLOOR MOUNTING DETAIL: DIGITAL ELEVATING TABLE INSTALLATION METHODS

B0558M

REV. DATE 11/10/09



PLAN VIEW



FRONT VIEW

DETAIL NOT TO SCALE

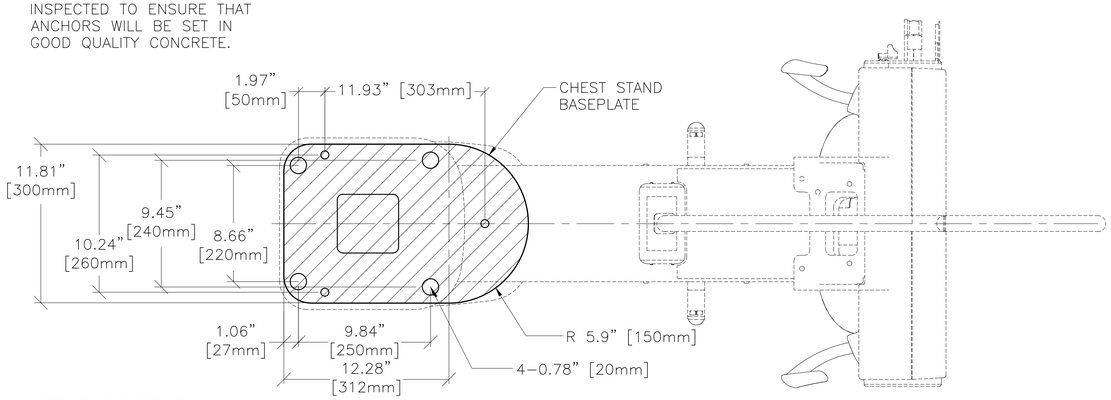
FLOOR MOUNTING DETAIL: DIGITAL CHEST READER

B0557G

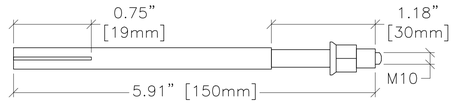
REV. DATE: 01.Oct.13

NOTE: CONCRETE AREA FOR WALL STAND INSTALLATION SHOULD BE 39.37"² [1 M²]. ANCHORS MUST BE A MINIMUM OF 3.54" [90 mm] FROM ANY CONCRETE EDGE INCLUDING DUCTS AND CRACKS. IN ADDITION, THE GENERAL CONDITION OF THE CONCRETE IN THE IMMEDIATE MOUNTING AREA SHOULD BE INSPECTED TO ENSURE THAT ANCHORS WILL BE SET IN GOOD QUALITY CONCRETE.

This sheet of drawings has not been reviewed for code compliance.



NOTE: THE SUPPLIED ANCHORS REQUIRE A MINIMUM EMBEDMENT OF 3.54" [90 mm] INTO THE CONCRETE. IF FLOOR THICKNESS IS LESS THAN 3.74" [95 mm], IT IS RECOMMENDED THAT THE UNIT BE SECURED USING A THROUGH–BOLT METHOD WITH A REINFORCEMENT PLATE ON THE BACK SIDE.



WALL STAND ANCHOR

DETAIL NOT TO SCALE

RSN: *1024436*
Permit #: *15-976795 LT*

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

GE Healthcare

Healthcare Project Implementation – Design Center
Wisconsin
Milwaukee,

SHEET TITLE: STRUCTURAL DETAILS

MODALITY TYPE: DISCOVERY XR656

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ANCILLARY EQUIPMENT. THIS PLAN IS NOT TO BE USED FOR CONSTRUCTION. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

This drawing is based on Sketch No.: s15–0206

RQ – 150750 PIM R8

PROJECT TITLE:

RAD ROOM

THE MEDICAL CENTER OF AURORA

AURORA, COLORADO

PROJECT	REVISION
150938	00

DATE: 24.Mar.15
DRAWN BY: RET
CHECKED BY: MKL
GON NO: 4281011
GON DT: 18.Mar.15

REVISION HISTORY:

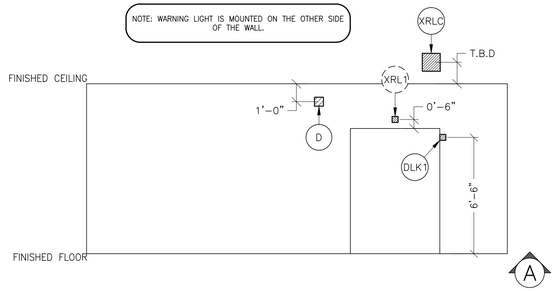
SHEET

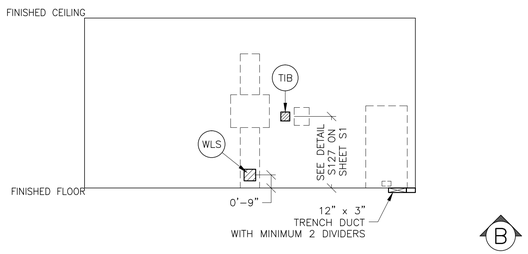
S2

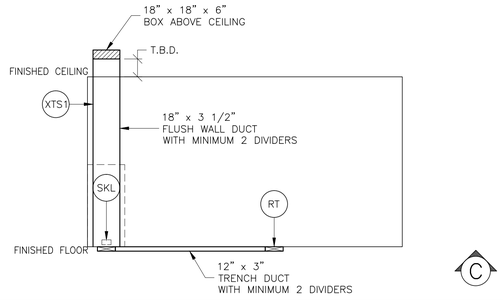
SCALE: 1/4" = 1'-0"

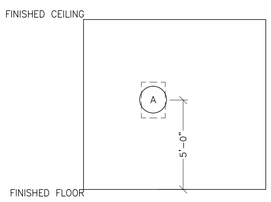
ELECTRICAL PLAN

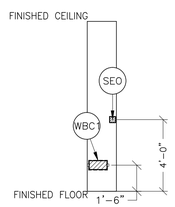
RECOMMENDED CEILING HEIGHT = 9'-6"









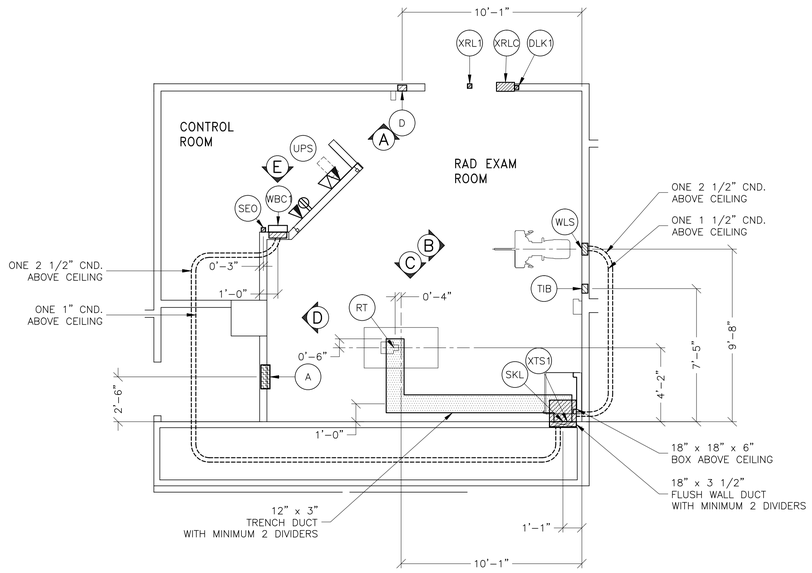


This sheet of drawings has not been reviewed for code compliance.

JUNCTION POINT NOTES

- ALL JUNCTION BOXES, CONDUIT, DUCT, DUCT DIVIDERS, SWITCHES, CIRCUIT BREAKERS, CABLE TRAY, ETC., ARE TO BE SUPPLIED AND INSTALLED BY CUSTOMERS ELECTRICAL CONTRACTOR.
- CONDUIT AND DUCT RUNS SHALL HAVE SWEEP RADIUS BENDS
- CONDUITS AND DUCT ABOVE CEILING OR BELOW FINISHED FLOOR MUST BE INSTALLED AS NEAR TO CEILING OR FLOOR AS POSSIBLE TO REDUCE RUN LENGTH.
- CEILING MOUNTED JUNCTION BOXES ILLUSTRATED ON THIS PLAN MUST BE INSTALLED FLUSH WITH FINISHED CEILING.
- ALL DUCTWORK MUST MEET THE FOLLOWING REQUIREMENTS:
  1. DUCTWORK SHALL BE METAL WITH DIVIDERS AND HAVE REMOVABLE, ACCESSIBLE COVERS.
  2. DUCTWORK SHALL BE CERTIFIED/RATED FOR ELECTRICAL POWER PURPOSES.
  3. DUCTWORK SHALL BE ELECTRICALLY AND MECHANICALLY BONDED TOGETHER IN AN APPROVED MANNER.
  4. PVC AS A SUBSTITUTE MUST BE USED IN ACCORDANCE WITH ALL LOCAL AND NATIONAL CODES.
- ALL OPENINGS IN ACCESS FLOORING ARE TO BE CUT OUT AND FINISHED OFF WITH GROMMET MATERIAL BY THE CUSTOMERS CONTRACTOR.
- GENERAL CONTRACTOR TO INSERT PULL CORDS FOR ALL CABLE RUN CONDUITS BETWEEN THE EQUIPMENT ROOM AND THE OPERATORS CONTROL ROOM.
- 10 FOOT PIGTAILS AT ALL JUNCTION POINTS.
- ALL WIRING MUST BE THHN OR TFFN STRANDED COPPER THERMOPLASTIC 600 VOLT OR EQUIVALENT INSULATION. **ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.**
- GROUNDING IS CRITICAL TO EQUIPMENT FUNCTION AND PATIENT SAFETY. SITE MUST CONFORM TO WIRING SPECIFICATIONS SHOWN ON THIS PLAN.

PLEASE SEE BELOW FOR ADDITIONAL REQUIRED CONDUIT RUNS AND SIZES.



JUNCTION POINT DESCRIPTIONS

POINT	DESCRIPTION	QTY.	THE FOLLOWING MATERIALS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER'S ELECTRICAL CONTRACTOR: HARDWARE	DETAIL NO., SHT. E3
A	MAIN DISCONNECT	1	PANEL INCLUDED IN ORDER ONE REMOTE EMERGENCY OFF (SEO) PUSHBUTTON AND STAINLESS STEEL WALL PLATE STATION ARE WITH EACH MAIN DISCONNECT	ELEC-15
D	DONGLE	1 1 1	COVERPLATE 1 1/2 IN. DIA. CHASE NIPPLE 6 X 6 X 4 IN. BOX	ELEC-8
DLK1	DOOR SWITCH (NEEDED ONLY IF REQUIRED BY STATE/ LOCAL CODES)	1 1	ROOM DOOR INTERLOCK LIMIT SWITCH IN FRAME - NORMALLY OPEN (24V) SINGLE GANG BOX	
RT	TABLE	4 2 1	1 1/4 IN. DIA. BUSHING & LOCKNUT 1 1/4 IN. DIA. SHORT NIPPLE	ELEC-25
SEO	EMERGENCY OFF	1	PROVIDE A SINGLE GANG, 2 1/2 IN. DEEP, SURFACE MTD. WALL BOX.	ELEC-16 ELEC-167
SKL	SYSTEMS CABINET	1	32 IN. OF GROMMET MATERIAL FOR AN 8 X 8 IN. OPENING IN DUCT COVER	ELEC-2 ELEC-6
TIB	TETHER INTERFACE BOX	1 1 1	COVERPLATE 1 IN. DIA. CHASE NIPPLE 6 X 6 X 4 IN. BOX	ELEC-8
UPS	UNINTERRUPTIBLE POWER SUPPLY	1	EXTERNAL CONNECTION	
WBC1	OPERATORS CONSOLE	1	12 X 6 X 4 IN. BOX	ELEC-173
WLS	CHEST UNIT	1 1 1 1	SPLIT COVERPLATE 1 IN. DIA. CHASE NIPPLE 1 1/2 IN. DIA. CHASE NIPPLE 6 X 8 X 4 IN. BOX WITH DIVIDER	ELEC-79
XRL1	WARNING LIGHT	1 1	SINGLE GANG BOX 1 X-RAY ON INCANDESCENT LIGHT FIXTURE. 24V, 8 AMP OR LESS LOW VOLTAGE SOURCE. DO NOT USE FLUORESCENT FIXTURES.	
XRLC	WARNING LIGHT CONTROLLER *AVAILABLE FROM GEHC. CALL: 800-279-7925 OR LOCAL GE INSTALLATION PROJECT MGR.	1	E4502RL WARNING LIGHT CONTROL OR EQUIVALENT MAX 24V CONTROLLER	ELEC-72
XTS1	X-RAY TUBE HANGER	1	32 IN. OF GROMMET MATERIAL FOR AN 8 X 8 IN. OPENING IN DUCT COVER	ELEC-6

JEDI 80kw SYSTEMS CABINET — REV. DATE: 03.FEB.15

- CALCULATIONS BASED UPON NOMINAL VOLTAGE, WIRE SIZE IN AWG.
- RECOMMENDED FEEDER SIZES FROM DISTRIBUTION TRANSFORMER TO THE POWER CABINET
- NEUTRAL MUST BE TERMINATED INSIDE THE MAIN DISCONNECT PANEL AND NOT AT ANY GE CABINET.
- THE GROUNDING CONDUCTOR WILL BE OF SAME SIZE AS THE FEEDER. THIS GROUND WILL RUN FROM THE EQUIPMENT BACK TO THE FACILITY POWER SOURCE/MAIN GROUNDING POINT AND ALWAYS TRAVEL IN THE SAME CONDUIT WITH THE FEEDERS AND NEUTRAL.
- * MINIMUM WIRE SIZE FOR CIRCUIT BREAKER, BASED ON RECOMMENDED OVERCURRENT PROTECTION.
- FOR A FULL SYSTEM UPS, REFER TO ELECTRICAL DETAILS FOR UPS FEEDER WIRES.

RUN LENGTH IN FEET	POWER SUPPLY VOLTAGE: 342–418 380	360–440 400	373–456 420	396–484 440	414–506 460	**432–528 480**
	SIZE OF FEEDERS AND GROUND WIRES (AWG)					
50	* 2	* 2	* 2	* 2	* 2	*** 2**
100	* 2	* 2	* 2	* 2	* 2	*** 2**
150	1/0	1	1	* 2	* 2	*** 2**
200	2/0	2/0	1/0	1/0	1	**1**
250	3/0	3/0	2/0	2/0	1/0	**1/0**
300	4/0	4/0	3/0	3/0	2/0	**2/0**
350	300M	250M	4/0	4/0	3/0	**3/0**
400	350M	300M	250M	4/0	4/0	**3/0**
450	400M	350M	300M	250M	250M	**4/0**

ADDITIONAL CONDUIT RUNS FOR DISCOVERY XR656, XR656 PLUS AND OPTIMA XR646

CONDUITS REQUIRED FOR BASE SYSTEM (CONDUITS ARE LOCATED ABOVE CEILING)

REV DATE: 03.Feb.15

XRLC	TO	XRL1	ONE 1/2" CND.
XRLC	TO	SKL	ONE 1/2" CND.
XRLC	TO	120-V 1Ø POWER	CND. AS REQ'D
A	TO	SKL	ONE CND. AS REQ'D
A	TO	SEO	ONE 1/2" CND.
A	TO	FEEDER	ONE CND. AS REQ'D
DLK1	TO	SKL	ONE 1/2" CND.
SKL	TO	TIB	ONE 2" CND.
WBC1	TO	TIB	ONE 1" CND.
SKL	TO	D	ONE 1" CND.
WBC1	TO	D	ONE 2" CND.

NOTE: SEE E2 PAGE FOR MAXIMUM RUN LENGTHS

ELECTRICAL OUTLET LEGEND

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS. HEIGHT ABOVE FLOOR DETERMINED BY LOCAL CODES UNLESS OTHERWISE SPECIFIED.

- DUPLEX HOSPITAL GRADE, DEDICATED OUTLET 120-V, SINGLE PHASE POWER
- DEDICATED TELEPHONE LINE(S) (SEE ELECTRICAL DETAIL ELEC-1 OR ELEC-67)
- NETWORK OUTLET (SEE ELECTRICAL DETAILS ELEC-83 AND ELEC-84 OR ELEC-87)

CONTRACTOR SUPPLIED AND INSTALLED WIRING

ELECTRICAL CONTRACTOR SHALL RING OUT, TAG AND TERMINATE ALL WIRES AT BOTH ENDS.

WIRE RUN, FROM – TO	QUANTITY, WIRE SIZE/COLOR
XRLC > 1 PHASE	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN
A > SEO	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN
SKL > XRLC	2-NO. 14 BLACK, 1-NO. 14 RED, 1-NO. 14 WHITE
SKL > DLK1	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN
XRL1 > XRLC	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN
A > SKL	3-BLACK, 1-GREEN – REFER TO FEEDER TABLE
480-V > A	3-BLACK, 1-WHITE, 1-GREEN – REFER TO FEEDER TABLE

GE Project Manager: JACOB BRAVO
Telephone: 1-800-568-0329
"THE GE APPLIED TECHNICAL SUPPORT GROUP IS AN ADDITIONAL RESOURCE THAT CAN PROVIDE ANSWERS FOR GENERAL GE PRODUCT APPLICATIONS AND CAN BE REACHED AT (800) 437-1171 OPTION 3 OR VIA EMAIL AT GEHC.ATS@GE.COM"

RSN: *1024436*
Permit #: *15-976795 LT*

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

GE Healthcare
Healthcare Project Implementation – Design Center
Wisconsin
Healthcare Project Implementation, Milwaukee,

SHEET TITLE: ELECTRICAL LAYOUT
MODALITY TYPE: DISCOVERY XR656

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ELECTRICAL WIRING DETAILS AS REQUESTED BY YOUR ARCHITECTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS APPROVED BY THE COMPANY. THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

This drawing is based on Sketch No.: s15-0206

RQ – 150750 PIM R8

PROJECT TITLE:
RAD ROOM
THE MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
150938	00

DATE: 24.Mar.15
DRAWN BY: RET
CHECKED BY: MKL
GON NO: 4281011
GON DT: 18.Mar.15

REVISION HISTORY:

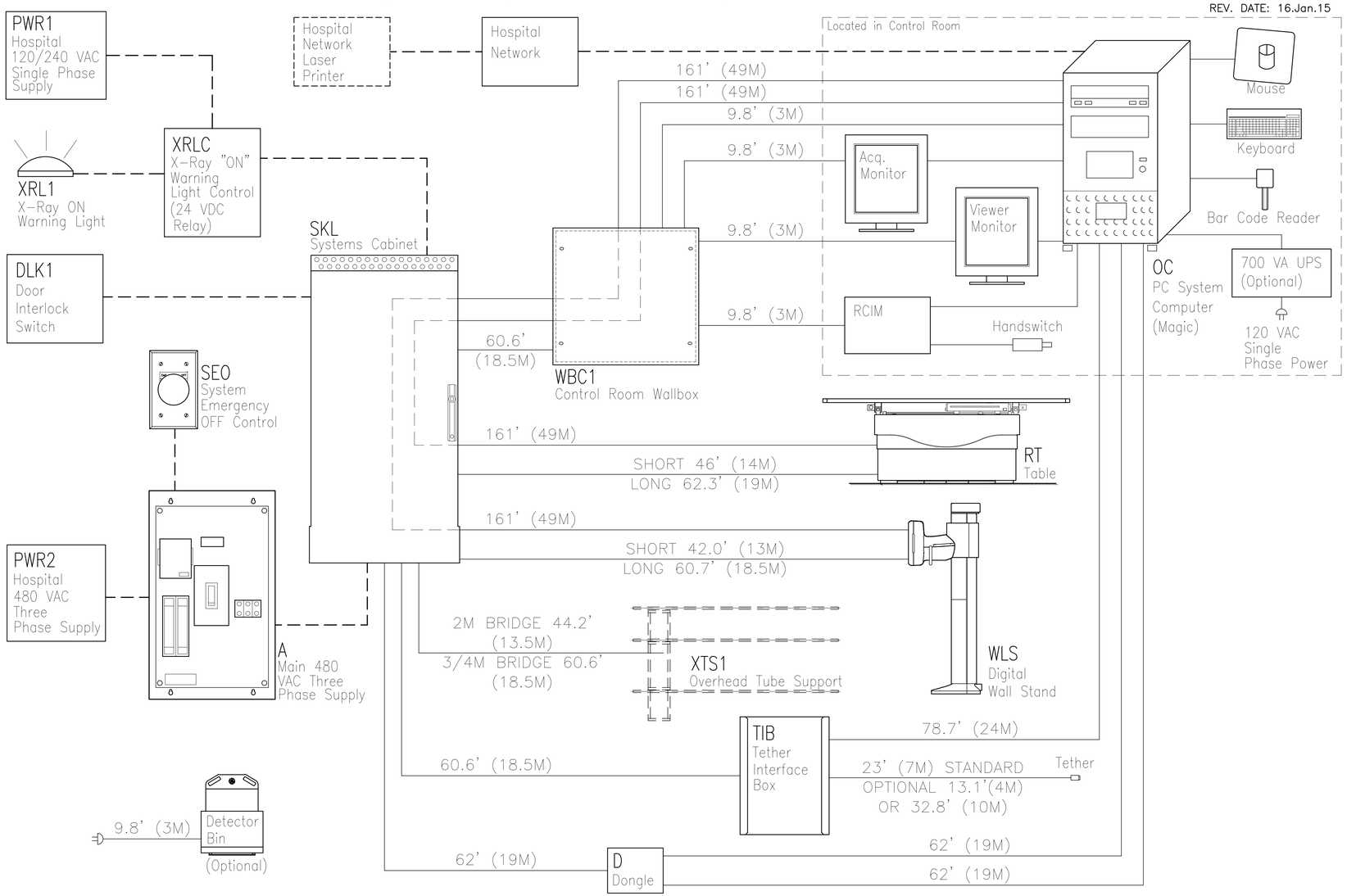
SHEET
E1

INTERCONNECT DIAGRAM

This sheet of drawings has not been reviewed for code compliance.

Discovery XR656/XR656 Plus System Interconnect Runs

REV. DATE: 16.Jan.15



RSN: *1024436*
Permit #: *15-976795 LT*

POWER SPECIFICATIONS

JEDI 80kw SYSTEMS CABINET REV. DATE: 20.Mar.15

VOLTAGE

PRIMARY SOURCE IS REQUIRED FOR ALL INSTALLATIONS.
RANGE OF LINE VOLTAGES :
NOMINAL LINE VOLTAGE OF 380 TO 480, 3 PHASE, WITHOUT NEUTRAL, 50 OR 60 Hz.

REQUIRED POWER SUPPLY: WYE DISTRIBUTION

MAXIMUM DAILY VOLTAGE VARIATION MUST FALL WITHIN ONE OF THE RANGES IN TABLE A.

TABLE A ALLOWABLE INPUT VOLTAGES/ CURRENT DEMAND

NOMINAL VOLTAGE	NORMAL RANGE ±10 PERCENT	CURRENT (AMPS)		MINIMUM OVERCURRENT PROTECTION
		MAX. MOMENTARY	CONTINUOUS	
380	342–418	190	7	95–A
400	360–440	180	6.7	90–A
415	373–456	170	6.2	85–A
440	396–484	163	6	82–A
460	414–506	156	5.7	78–A
480	432–528	150	5.5	75–A

ALL CALCULATIONS BASED UPON NOMINAL VOLTAGE

NOTE

LOW LINE CONDITIONS MAY INHIBIT SOME HIGH kVp TECHNIQUES. THE GENERATOR AUTOMATICALLY ESTABLISHES THESE INHIBITS BASED ON ACTUAL LINE CONDITIONS AND SYSTEM REGULATION.

PHASE–BALANCE

PHASE–TO–PHASE VOLTAGES MUST BE WITHIN +2 PERCENT OF THE LOWEST PHASE–TO–PHASE VOLTAGE. MAXIMUM ALLOWABLE TRANSIENT VOLTAGE EXCURSIONS ARE 2.5 PERCENT OF RATED LINE VOLTAGE AT A MAXIMUM DURATION OF 5 CYCLES AND FREQUENCY OF 10 TIMES PER HOUR.

POWER DEMAND

CONTINUOUS POWER DEMAND =4.6 KVA. (MAX DEMAND = 125 KVA)

TABLE B MAXIMUM MOMENTARY POWER DEMAND.

DEMAND	VALUE
kVa *	125
POWER FACTOR AT	0.73
mA	630
kVp	80

* DEMAND INCLUDES POWER FOR ENTIRE SYSTEM. LINE VOLTAGE REGULATION AT MAXIMUM POWER DEMAND MUST BE LESS THAN OR EQUAL TO 6 PERCENT.

DISTRIBUTION TRANSFORMER

FOR A SINGLE UNIT INSTALLATION, THE MINIMUM TRANSFORMER SIZE IS 150 KVA. SYNTHESIZED POWER FEED IS NOT ACCEPTABLE

STANDARD DISCONNECTS

E4502ST 80 AMP DISCONNECT
E4502RS 110 AMP DISCONNECT
E4502RT 150 AMP DISCONNECT
E4502RP 90 AMP DISCONNECT WITH AUTO–RESTART
E4502SA 110 AMP DISCONNECT WITH AUTO–RESTART
E4502RY 125 AMP DISCONNECT WITH AUTO–RESTART

ELECTRICAL NOTES

NOTE 1: ALL WIRES SPECIFIED SHALL BE COPPER STRANDED, FLEXIBLE, THERMO–PLASTIC, COLOR CODED, CUT 10 FOOT LONG AT OUTLET BOXES, DUCT TERMINATION POINTS OR STUBBED CONDUIT ENDS. ALL CONDUCTORS, POWER, SIGNAL AND GROUND, MUST BE RUN IN A CONDUIT OR DUCT SYSTEM. ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS. WIRE RUNS MUST BE CONTINUOUS COPPER STRANDED AND FREE FROM SPLICES. **ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.**

NOTE 2: WIRE SIZES GIVEN ARE FOR USE OF EQUIPMENT. LARGER SIZES MAY BE REQUIRED BY LOCAL CODES.

NOTE 3: IT IS RECOMMENDED THAT ALL WIRES BE COLOR CODED, AS REQUIRED IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.

NOTE 4: CONDUIT SIZES SHALL BE VERIFIED BY THE ARCHITECT, ELECTRICAL ENGINEER OR CONTRACTOR, IN ACCORDANCE WITH LOCAL OR NATIONAL CODES.

NOTE 5: CONVENIENCE OUTLETS ARE NOT ILLUSTRATED. THEIR NUMBER AND LOCATION ARE TO BE SPECIFIED BY OTHERS. LOCATE AT LEAST ONE CONVENIENCE OUTLET CLOSE TO THE SYSTEM CONTROL, THE POWER DISTRITBUTION UNIT AND ONE ON EACH WALL OF THE PROCEDURE ROOM. USE HOSPITAL APPROVED OUTLET OR EQUIVALENT.

NOTE 6: GENERAL ROOM ILLUMINATION IS NOT ILLUSTRATED. CAUTION SHOULD BE TAKEN TO AVOID EXCESSIVE HEAT FROM OVERHEAD SPOTLIGHTS. DAMAGE CAN OCCUR TO CEILING MOUNTING COMPONENTS AND WIRING IF HIGH WATTAGE BULBS ARE USED. RECOMMEND LOW WATTAGE BULBS NO HIGHER THAN 75 WATTS AND USE DIMMER CONTROLS (EXCEPT MR). DO NOT MOUNT LIGHTS DIRECTLY ABOVE AREAS WHERE CEILING MOUNTED ACCESSORIES WILL BE PARKED.

NOTE 7: ROUTING OF CABLE DUCTWORK, CONDUITS, ETC., MUST RUN DIRECT AS POSSIBLE OTHERWISE MAY RESULT IN THE NEED FOR GREATER THAN STANDARD CABLE LENGTHS (REFER TO THE INTERCONNECTION DIAGRAM FOR MAXIMUM USABLE LENGTHS POINT TO POINT).

NOTE 8: CONDUIT TURNS TO HAVE LARGE, SWEEPING BENDS WITH MINIMUM RADIUS IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.

NOTE 9: A SPECIAL GROUNDING SYSTEM IS REQUIRED IN ALL PROCEDURE ROOMS BY SOME NATIONAL AND LOCAL CODES. IT IS RECOMMENDED IN AREAS WHERE PATIENTS MIGHT BE EXAMINED OR TREATED UNDER PRESENT, FUTURE, OR EMERGENCY CONDITIONS. CONSULT THE GOVERNING ELECTRICAL CODE AND CONFER WITH APPROPRIATE CUSTOMER ADMINISTRATIVE PERSONNEL TO DETERMINE THE AREAS REQUIRING THIS TYPE OF GROUNDING SYSTEM.

NOTE 10: THE MAXIMUM POINT TO POINT DISTANCES ILLUSTRATED ON THIS DRAWING MUST NOT BE EXCEEDED.

NOTE 11: PHYSICAL CONNECTION OF PRIMARY POWER TO GE EQUIPMENT IS TO BE MADE BY CUSTOMERS ELECTRICAL CONTRACTOR WITH THE SUPERVISION OF A GE REPRESENTATIVE. THE GE REPRESENTATIVE WOULD BE REQUIRED TO IDENTIFY THE PHYSICAL CONNECTION LOCATION, AND INSURE PROPER HANDLING OF GE EQUIPMENT.

NOTE 12: GEHC CONDUCTS POWER AUDITS TO VERIFY QUALITY OF POWER BEING DELIVERED TO THE SYSTEM. THE CUSTOMER'S ELECTRICAL CONTRACTOR IS REQUIRED TO BE AVAILABLE TO SUPPORT THIS ACTIVITY.

DIAGRAM KEY

- CUSTOMER/CONTRACTOR SUPPLIED WIRING. ROUTE IN ADEQUATE CONDUIT OR RACEWAY.
- GE FURNISHED CABLE RUNS. ROUTE IN EMPTY CONDUIT OR RACEWAY.
- 59' [18M] MAXIMUM RUN LENGTH BETWEEN JUNCTION POINTS. Feet [Meters]

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

GE Healthcare
Healthcare Project Implementation – Design Center
Wisconsin
Healthcare Project Implementation – Design Center
Milwaukee,

SHEET TITLE: ELECTRICAL SPECIFICATIONS
MODALITY TYPE: DISCOVERY XR656

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ELECTRICAL WIRING. DETAILS MAY BE INCOMPLETE AND NOT TO SCALE. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS APPROVED BY THE COMPANY. THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
RAD ROOM
THE MEDICAL CENTER OF AURORA
AURORA, COLORADO

This drawing is based on Sketch No.: s15-0206

RQ – 150750 PIM R8

PROJECT	REVISION
150938	00

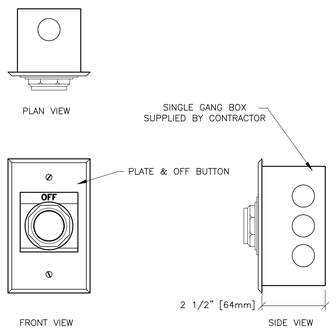
DATE: 24.Mar.15
DRAWN BY: RET
CHECKED BY: MKL
GON NO: 4281011
GON DT: 18.Mar.15

REVISION HISTORY:

SHEET
E2

ELECTRICAL DETAIL
EMERGENCY OFF BUTTON

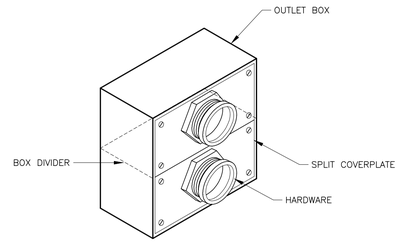
ELEC–16
REV. DATE: 05/14/09



DETAIL NOT TO SCALE

ELECTRICAL DETAIL
BOX WITH DIVIDER AND SPLIT COVERPLATE (TYPICAL)

ELEC–79
REV. DATE: 04/06/04

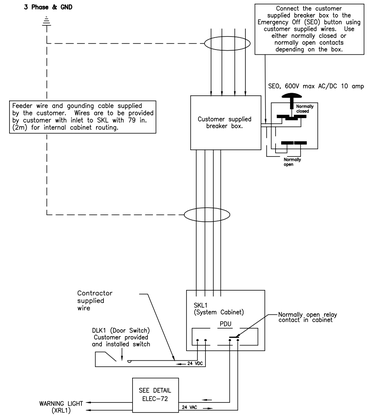


This sheet of drawings has not been reviewed for code compliance.

DETAIL NOT TO SCALE

ELECTRICAL DETAIL
ROOM POWER SUPPLY

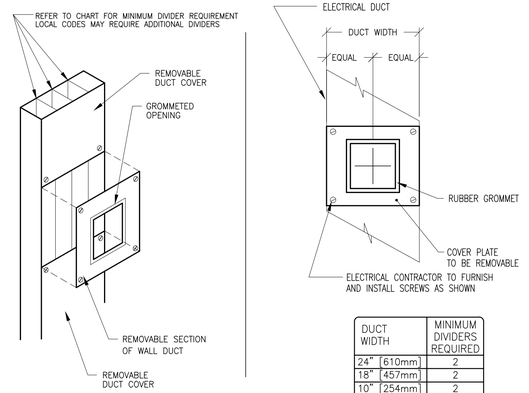
ELEC–167
REV. DATE: 04–08–10



DETAIL NOT TO SCALE

ELECTRICAL DETAIL
VERTICAL WALL DUCT (TYPICAL)

ELEC–6
REV. DATE: 03/19/04



DUCT WIDTH	MINIMUM DIVIDERS REQUIRED
24" [610mm]	2
18" [457mm]	2
10" [254mm]	2
6" [152mm]	1
4" [102mm]	1

DETAIL NOT TO SCALE

ELECTRICAL DETAIL
BOX WITH COVERPLATE (TYPICAL)

ELEC–8
REV. DATE: 09/30/94

DETAIL NOT TO SCALE

ELECTRICAL DETAIL
FLUSH FLOOR DUCT (TYPICAL)

ELEC–25
REV. DATE: 4/01/04

DUCT WIDTH	MINIMUM DIVIDERS REQUIRED
24" [610mm]	2
18" [457mm]	2
10" [254mm]	2
6" [152mm]	1
4" [102mm]	1

12" TRENCH DUCT: A = 10" B = 12"

18" TRENCH DUCT: A = 18" B = 20"

DETAIL NOT TO SCALE

ELECTRICAL DETAIL
J.B. / WALL DUCT DETAIL (TYPICAL)

ELEC–2
REV. DATE: 02.Jan.15

DETAIL NOT TO SCALE

ELECTRICAL DETAIL
WARNING LIGHT DIAGRAM

ELEC–72
REV. DATE: 05/14/09

UNLESS SPECIFIED ON SHEET A1 AS BEING INCLUDED ON EQUIPMENT ORDER, ALL ITEMS ILLUSTRATED ARE TO BE FURNISHED AND INSTALLED BY CUSTOMER'S CONTRACTOR

DRAWING NOT TO SCALE

ELECTRICAL DETAIL
X–RAY MAIN DISCONNECT PANEL

ELEC–15
REV. DATE: 09.Mar.15

DETAIL NOT TO SCALE

EQUIPMENT DETAIL
WALL PLATE

ELEC–173
REV. DATE: 11.Aug.14

NOTE:
THE USE OF A WALL BOX IS REQUIRED WITH THIS SYSTEM. WALL BOX IS USED TO INTERFACE THE CABLES IN EXAM ROOM AND PATIENT ROOM. THE CABLES USED WITH THIS SYSTEM ARE TERMINATED WITH CONNECTORS THAT CAN ONLY BE USED WITH THIS SPECIFIC WALL BOX.

DETAIL NOT TO SCALE

ELECTRICAL DETAIL
INSITE CONNECTION (TYPICAL)

ELEC–1
REV. DATE: 04/24/02

ONE OF THE FOLLOWING TWO SELECTIONS MUST BE INSTALLED AT THE LOCATION SHOWN ON THE ELECTRICAL PLAN (SHEET E1) FOR GE INSITE CONNECTION BASED UPON SYSTEM CONFIGURATION.

A) ONE INTERNET ACCESSIBLE VIRTUAL PRIVATE NETWORK (VPN) CONNECTION WITH A STATIC IP ADDRESS, AND ONE TELEPHONE LINE – DEDICATED–DIRECT–DIALING, VOICE GRADE.

OR

B) TWO TELEPHONE LINES – ONE DEDICATED DIRECT–DISTANCE–DIALING, VOICE GRADE AND ONE A DEDICATED DATA LINE.

ALL ITEMS ILLUSTRATED ARE TO BE FURNISHED AND INSTALLED BY CUSTOMER OR THEIR CONTRACTOR.

DETAIL NOT TO SCALE

ELECTRICAL DETAIL
BOX WITH COVERPLATE AND NETWORK JACK

ELEC–83
REV. DATE: 10/06/98

RSN: *1024436*
Permit #: *15-976795 LT*

DETAIL NOT TO SCALE

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

GE Healthcare
Healthcare Project Implementation – Design Center
Wisconsin
Milwaukee,

SHEET TITLE: ELECTRICAL DETAILS
MODALITY TYPE: DISCOVERY XR656

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ELECTRICAL DEVICES. THIS PLAN IS NOT INTENDED TO BE USED FOR BIDDING PURPOSES. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR ACTUAL CONSTRUCTION PURPOSES. THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
RAD ROOM
THE MEDICAL CENTER OF AURORA
AURORA, COLORADO

This drawing is based on Sketch No.: s15–0206

RQ – 150750 PIM R8

PROJECT	REVISION
150938	00

DATE: 24.Mar.15
DRAWN BY: RET
CHECKED BY: MKL
GON NO: 4281011
GON DT: 18.Mar.15

REVISION HISTORY:

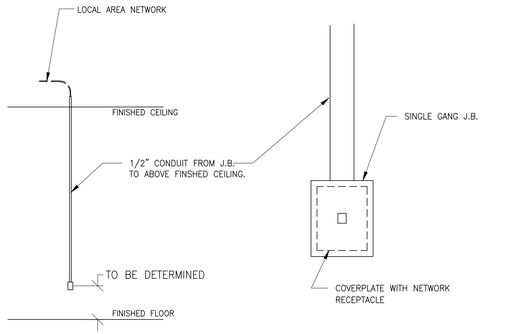
SHEET
E3

ELECTRICAL DETAIL
NETWORK CONNECTION (TYPICAL)

ELEC–84

REV. DATE: 03/06/04

FOR NUCLEAR SYSTEMS A DIRECT NETWORK CONNECTION IS TO BE MADE BETWEEN THE SYSTEM AND THE REVIEW WORKSTATION.



DETAIL NOT TO SCALE

This sheet of drawings has not been reviewed for code compliance.

RSN: *1024436*
Permit #: *15-976795 LT*

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

This drawing is based on Sketch No.: s15–0206

PIM R8

RQ – 150750

GE Healthcare

Healthcare Project Implementation – Design Center
Milwaukee, Wisconsin

SHEET TITLE: ELECTRICAL DETAILS

MODALITY TYPE: DISCOVERY XR656

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ANCILLARY ELECTRICAL WORK. IT IS NOT A FINAL ARCHITECTURAL DRAWING. THIS PLAN WAS PREPARED IN ACCORDANCE WITH GENERAL INFORMATION AVAILABLE AT THE TIME. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS VERIFIED AND APPROVED BY THE COMPANY. THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
RAD ROOM
THE MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
150938	00

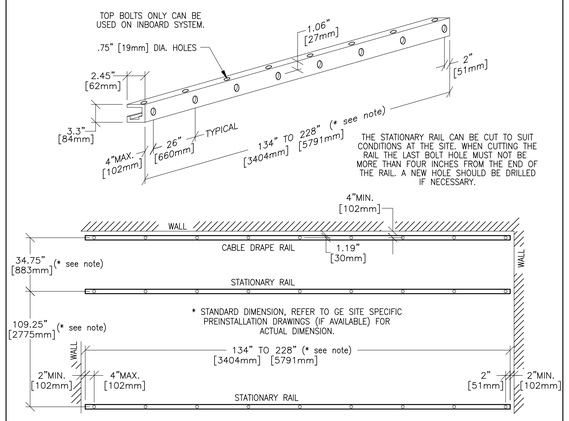
DATE: 24.Mar.15
DRAWN BY: RET
CHECKED BY: MKL
GON NO: 4281011
GON DT: 18.Mar.15

REVISION HISTORY:

SHEET
E4

EQUIPMENT DETAIL
XT RADIOGRAPHIC SUSPENSION, INBOARD MOUNTING

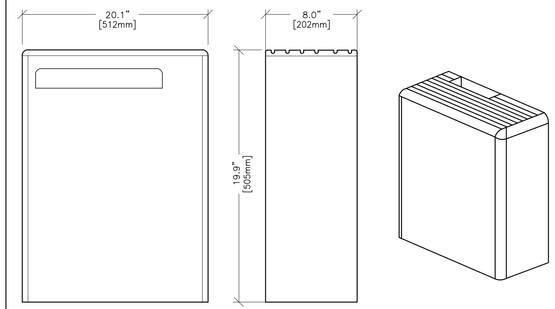
B2004C
REV. DATE: 07.Mar.14



DETAIL NOT TO SCALE

EQUIPMENT DETAIL
GRID HOLDER

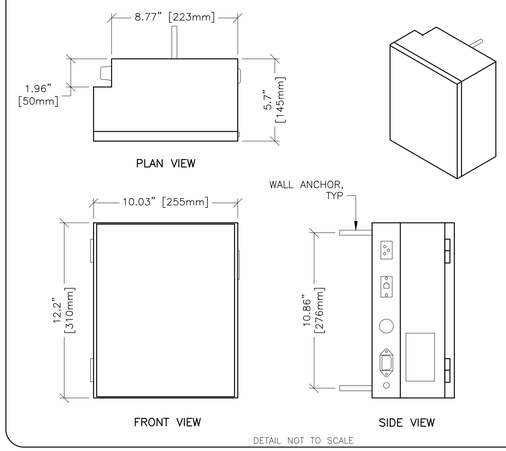
B05-57W
REV. DATE: 05/26/10



DETAIL NOT TO SCALE

EQUIPMENT DETAIL
TIB

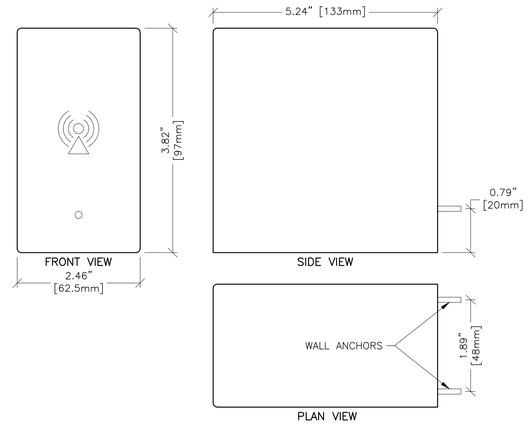
B8126
REV. DATE: 03/30/11



DETAIL NOT TO SCALE

EQUIPMENT DETAIL
DONGLE

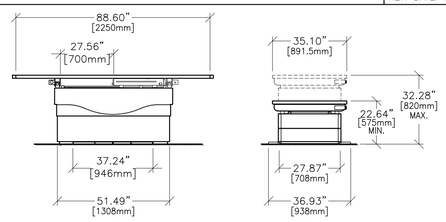
B8137
REV. DATE: 03/31/11



DETAIL NOT TO SCALE

EQUIPMENT DETAIL
DIGITAL ELEVATING RADIOGRAPHIC TABLE

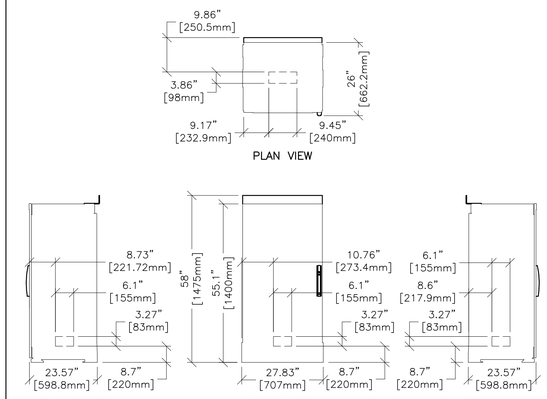
B0557U
REV. DATE: 05/26/10



DETAIL NOT TO SCALE

EQUIPMENT DETAIL
SYSTEM CABINET

B8125
REV. DATE: 05.Dec.11



DETAIL NOT TO SCALE

EQUIPMENT DETAIL
EQUIPMENT SHIPPING DETAIL

B6564E
REV. DATE: 07.Aug.11

SHIPPING DIMENSIONS AND WEIGHTS – DOMESTIC SHIPMENTS				
LENGTH IN [MM]	WIDTH IN [MM]	HEIGHT IN [MM]	lbs [kg]	
SHIPPING DIMENSIONS (APPROX) – OVERHEAD TUBE SUPPORT INCLUDING X-RAY TUBE				
34 [864]	41 [1039]	53.5 [1355]	635 [288]	BOX/CRATE/SKID
SHIPPING DIMENSIONS (APPROX) – SET OF 2 RAILS				
233 [5920]	7 [178]	3 [76]	150 [68]	BOX
SHIPPING DIMENSIONS (APPROX) – 2 METER BRIDGE				
87 [2210]	29 [737]	7 [178]	138 [63]	BOX
SHIPPING DIMENSIONS (APPROX) – 3 METER BRIDGE				
122 [3099]	29 [737]	7 [178]	185 [84]	BOX
SHIPPING DIMENSIONS (APPROX) – 4 METER BRIDGE				
200 [5080]	29 [737]	8 [203]	305 [138]	BOX
SHIPPING DIMENSIONS (APPROX) – 2 METER CABLE ASSEMBLY				
32 [813]	23 [584]	9 [229]	100 [45]	BOX/SKID
SHIPPING DIMENSIONS (APPROX) – 3 METER CABLE ASSEMBLY				
32 [813]	23 [584]	9 [229]	108 [49]	BOX/SKID
SHIPPING DIMENSIONS (APPROX) – 4 METER CABLE ASSEMBLY				
32 [813]	23 [584]	9 [229]	110 [50]	BOX/SKID
SHIPPING DIMENSIONS (APPROX) – SYSTEM CABINET				
35 [890]	30 [760]	65 [1650]	814 [370]	BOX
SHIPPING DIMENSIONS (APPROX) – SYSTEM CABINET HARDWARE				
27.8 [707]	26 [662]	58 [1475]	705 [320]	BOX/SKID

EQUIPMENT DETAIL
EQUIPMENT SHIPPING DETAIL

B6564F
REV. DATE: 07.Aug.11

SHIPPING DIMENSIONS AND WEIGHTS – DOMESTIC SHIPMENTS				
LENGTH IN [MM]	WIDTH IN [MM]	HEIGHT IN [MM]	lbs [kg]	
SHIPPING DIMENSIONS (APPROX) – WALL STAND				
96 [2440]	37 [940]	50 [1270]	1023 [464]	CRATE/SKID
SHIPPING DIMENSIONS (APPROX) – EXTENDED WALL STAND				
96 [2440]	37 [940]	65 [1651]	1087 [493]	CRATE/SKID
SHIPPING DIMENSIONS (APPROX) – DETECTOR ASSEMBLY				
41 [1042]	47 [1194]	29 [737]	194 [88]	CRATE/SKID
SHIPPING DIMENSIONS (APPROX) – TABLE ASSEMBLY				
95 [2400]	44 [1100]	51 [1300]	1327 [602]	BOX/SKID
SHIPPING DIMENSIONS (APPROX) – STRETCHER NON-ELEVATING				
91 [2312]	41 [1042]	37 [940]	360 [164]	BOX/SKID
SHIPPING DIMENSIONS (APPROX) – STRETCHER CARBON FIBER NON-ELEVATING				
90.5 [2300]	30 [770]	9 [230]	154 [70]	CRATE
SHIPPING DIMENSIONS (APPROX) – STRETCHER ELEVATING				
99 [2312]	37 [920]	32 [810]	772 [350]	CRATE/SKID
SHIPPING DIMENSIONS (APPROX) – EXAM ROOM LEAN CART				
84 [2134]	30 [762]	60 [1524]	VARIES	WHEELED CART
SHIPPING DIMENSIONS (APPROX) – CONTROL & OPTIONS LEAN CART				
51.5 [1308]	30 [762]	55 [1397]	VARIES	WHEELED CART
SHIPPING DIMENSIONS (APPROX) – DETECTOR BIN				
21.3 [540]	14.2 [360]	4.7 [120]	33 [15]	BOX

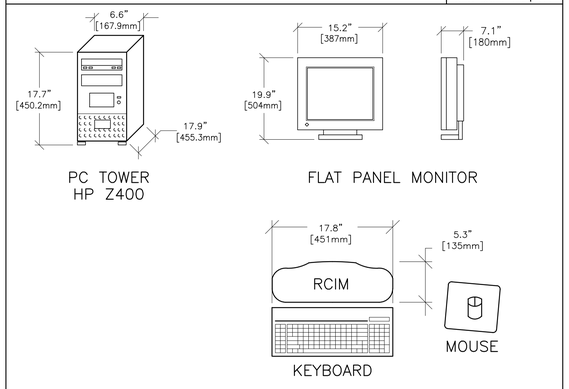
EQUIPMENT DETAIL
XR656 HEAT OUTPUTS BY COMPONENT

B8138
REV. DATE: 07.Aug.11

PRODUCT OR COMPONENT	HEAT OUTPUT			
	STANDBY		IN-USE	
	BTU/h	Kilowatt	BTU/h	Kilowatt
Wall Stand Detector power	56	0.017	56	0.017
Wall Stand / Extended Wall Stand	79	0.023	321	0.094
Table Detector Power	56	0.017	56	0.017
Table	315	0.092	2272	0.666
OTS & Collimator	105	0.031	105	0.031
Tube Rotor	0	0	544	0.160
System Cabinet	2437	0.714	4869	1.427
Z400 PC + Monitor	601	0176	863	0253
TIB	6.75	0.002	68	0.020

EQUIPMENT DETAIL
OPERATORS CONSOLE

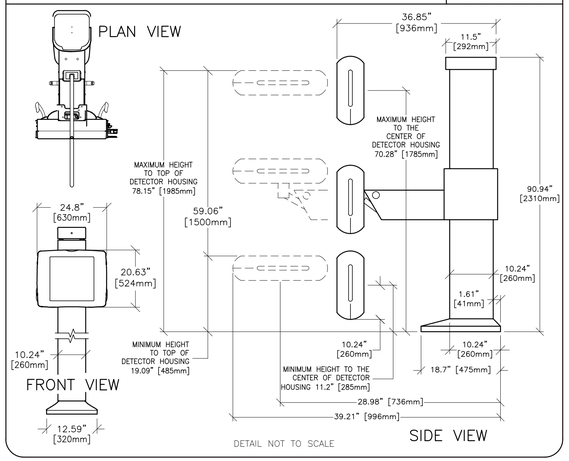
CG10CB
REV. DATE: 12.Apr.11



DETAIL NOT TO SCALE

EQUIPMENT DETAIL
DIGITAL CHEST READER

B05-570
REV. DATE: 08.FEB.12



DETAIL NOT TO SCALE

This sheet of drawings has not been reviewed for code compliance.

RSN: *1024436*
Permit #: *15-976795 LT*

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

GE Healthcare
Healthcare Project Implementation – Design Center
Milwaukee, Wisconsin

SHEET TITLE: EQUIPMENT DETAILS

MODALITY TYPE: DISCOVERY XR656

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT. ALL DIMENSIONS ARE APPROXIMATE AND MUST BE VERIFIED BY ARCHITECT/ENGINEER. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES. THE GE HEALTHCARE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

This drawing is based on Sketch No.: s15-0206

RQ - 150750 PIM R8

PROJECT TITLE:
RAD ROOM
THE MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
150938	00
DATE:	24.Mar.15
DRAWN BY:	RET
CHECKED BY:	MKL
GON NO:	4281011
GON DT:	18.Mar.15

REVISION HISTORY:

SHEET
D1