RSN: *1312470*
Permit #: *2018-1509154-LT*

THE MEDICAL CENTER OF AURORA

NUCLEAR MEDICINE EQUIPMENT UPGRADE

1501 S. POTOMAC ST., AURORA, CO 80012

PROJECT TEAM

OWNER

MEDICAL CENTER OF AURORA
1501 S. POTOMAC STREET
AURORA, COLORADO 80012
303.873.4895

ARCHITECT

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219

CONTACT:
TOM THOMPSON
720.989.6084
TomThompsonArchitect@gmail.com

DESIGNER / DRAFTSMAN

THE DESIGN PLOT
PARKER, COLORADO 80138

CONTACT:
THOMAS HECKER
303.565.7282 CELL
303.338.7869
thomas.hecker@healthonecares.com

STRUCTURAL ENGINEER

NEXT LEVEL, INC.
7186 SOUTH FOREST LANE
CENTENNIAL, COLORADO 80122

CONTACT:
MATT NICHOLS
303.260.9455
matt@nlengineers.com

MEP ENGINEER

WSP ENGINEERING CONSULTANTS
GREENWOOD VILLAGE, COLORADO 80111

CONTACT:
TYLER FRITZ
303.832.9091 OFFICE
tyler.fritz@wsp.com

CONTRACTOR

THE TKM GROUP
10656 WEST GLASGOW AVENUE
LITTLETON, COLORADO 80127

CONTACT:
TODD KOECHLEIN
303.715.8526
todd.koechlein@tkmgroupllc.com

EQUIPMENT

GE HEALTHCARE
MILWAUKEE, WISCONSIN

CONTACT:
TONY SCHRADER
800.568.0329 OFFICE
720.467.4290 CELL
tony.schrader@ge.com

NURSE CALL

BECK'S COMMUNICATION SYSTEMS
7165 IVY STREET
COMMERCE CITY, COLORADO 80022

CONTACT:
STEVE BECK
303.916.5150

LOW VOLTAGE & DATA

GUARANTEE ELECTRICAL COMPANY
21250 EAST 31ST CIRCLE
AURORA, COLORADO 80011

CONTACT:
DARRIN MARTIN
303.618.8085
darrin.martin@geco.com

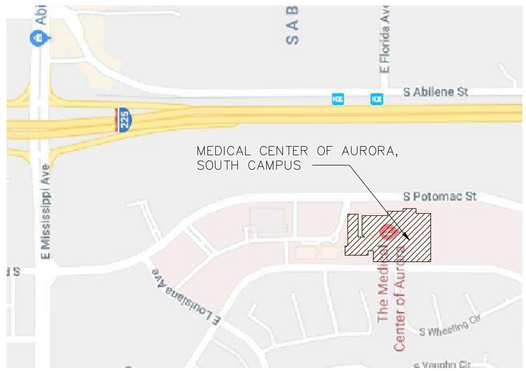
GENERAL NOTES

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. 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.
10. 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.
11. 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.
12. GENERAL CONTRACTOR SHALL COORDINATE APPROPRIATE PARKING ACCOMMODATIONS FOR EMPLOYEE AND SUBCONTRACTOR VEHICLES WITH OWNER PRIOR TO COMMENCEMENT OF WORK.
13. 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.
14. 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.
15. 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.
16. G.C. SHALL KEEP TOILET FACILITIES ON SITE CLEAN AND USABLE.
17. MULTIPLE SWITCHES SHALL BE GANGED IN SINGLE BOXES WITH COVER PLATE COLORS/ DEVICES TO BE WHITE, SWITCH PLATES SHALL ALIGN.
18. GENERAL CONTRACTOR MUST BE FAMILIAR WITH EXISTING CONDITIONS TO PROPERLY ACCOUNT FOR THE NECESSARY COSTS ASSOCIATED WITH CONSTRUCTION.
19. NO CHANGE ORDERS WILL BE PERMITTED UNLESS OWNER INITIATED OR APPROVED PRIOR TO COMMENCEMENT OF THE CHANGE.
20. CONTAIN CONSTRUCTION WASTE BEFORE TRANSPORT IN TIGHTLY COVERED CONTAINERS.
21. ANTE ROOM SHALL BE CLEAN AT ALL TIMES. WIPE DOWN CARTS IN ANTE ROOM PRIOR TO LEAVING CONTAINMENT.
22. MAINTAIN A CLEAN WORK ENVIRONMENT BY VACUUMING WITH HEPA-FILTERED VACUUMS.
23. CONTRACTOR TO MAINTAIN NEGATIVE ROOM PRESSURE OF MINIMUM -0.03 INCHES WATER GAGE RECORDED BY CONTRACTOR PROVIDED MANOMETER & EXHAUSTED BY HEPA-FILTER NEGATIVE AIR MACHINE.
24. UPON COMPLETION, CONTRACTOR TO DO FINAL CLEAN TO INCLUDE REMOVAL OF ALL DUST AND DEBRIS BY VACUUMING, MOPING & WIPING DOWN ALL VISUAL SURFACES.

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

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

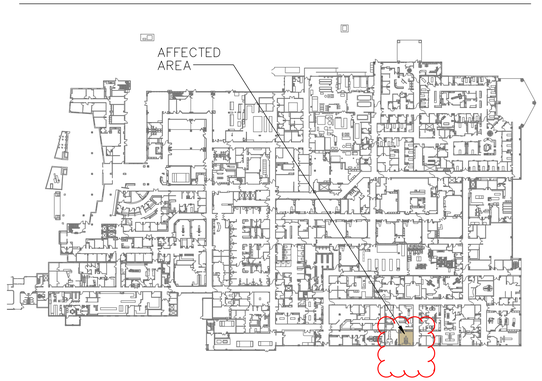
Field Inspection consultation is available upon request. Call 303-739-7420 to request a consultation



VICINITY MAP
NTS

NORTH

POTOMAC ST.



KEY PLAN
NTS

NORTH

DRAWING INDEX

ARCHITECTURAL

A.0 COVER SHEET
A0.1 CODE COMPLIANCE PLAN
A1.0 DEMOLITION PLAN
A1.1 CEILING DEMOLITION PLAN
A1.2 DIMENSION/SCHEDULE/TAG PLAN
A1.3 EQUIPMENT/FINISHES PLAN
A1.4 SHIELDING PLAN
A1.5 REFLECTED CEILING PLAN
A4.0 ELEVATIONS/SECTIONS

ELECTRICAL & MECHANICAL

E0.1 ELECTRICAL LEGENDS AND NOTES
E4.1 ELECTRICAL ONE-LINE DIAGRAM
E0.2 ELECTRICAL SPECIFICATIONS
E2.1 POWER PLAN
E3.1 LIGHTING PLAN
M2.1 MECHANICAL PLAN

GE SITE SPECIFIC PLANS

C1 COVER SHEET
A1 EQUIPMENT LAYOUT
S1 STRUCTURAL LAYOUT
S2 STRUCTURAL DETAILS
E1 ELECTRICAL LAYOUT
E2 ELECTRICAL SPECIFICATIONS
E3 ELECTRICAL DETAILS
D1 EQUIPMENT DETAILS
D2 EQUIPMENT DETAILS

STRUCTURAL

S.1 SLAB PLAN & DETAILS

PLAN CHANGES WILL REQUIRE AN APPROVED REVISION BEFORE INSPECTION CAN BE APPROVED

City of Aurora Building Division
Project: *Nuclear Medicine Equip upgrade*
Address: *1501 S Potomac St #*
Occupancy Group: *I2*
Construction Type: *1A-SPK*
RSN: *1312470*
Permit: *2018-1509154-LT*

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Aug 28, 2018
2015 INTERNATIONAL CODES & 2017 NEC

CODE INFORMATION SUMMARY

PROJECT NAME: NUCLEAR MEDICINE EQUIPMENT UPGRADE

PROJECT ADDRESS: 1501 S. POTOMAC STREET
AURORA, COLORADO 80012

CONSTRUCTION TYPE: I-A

OCCUPANCY CLASSIFICATION: GROUP I-2 HOSPITAL (IBC)

AFFECTED SQUARE FOOTAGE: 388 S.F.

OCCUPANT LOAD FACTOR: 240 SF/OCCUPANT (INPATIENT)

OCCUPANT LOAD: 388 S.F./240 = 2 OCCUPANTS

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

EXITS: 2 EXITS ON THE GROUND LEVEL
8'-0" WIDE EXIT ACCESS CORRIDORS

APPLICABLE CODES:
2015 INTERNATIONAL BUILDING CODE (IBC)
2015 INTERNATIONAL MECHANICAL CODE (IMC)
2015 INTERNAMTIONAL FUEL GAS CODE (IFGC)
2015 INTERNATIONAL FIRE CODE (IFC)
2015 INTERNATIONAL PLUMBING CODE (IPC)
2015 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
2017 NATIONAL ELECTRICAL CODE (NEC)

2009 ICC/ANSI A117.1

CHAPTER 22 BUILDINGS & REGULATIONS
(AURORA BUILDING & ZONING CODES)
CHAPTER 66 FIRE PREVENTION & PROTECTION
(AURORA BUILDING & ZONING CODES)

2012 NFPA 101 LIFE SAFETY CODES

2009 CDPHE LICENSING REQUIREMENTS

CODE NOTES

A. EXISTING FIRE ALARM AND SPRINKLER SYSTEMS WILL REMAIN WITHOUT MODIFICATION.
B. FIRE RATED WALL ASSEMBLIES WILL BE NOT BE MODIFIED.

The Medical Center of Aurora
Health ONE

NUCLEAR MED EQUIPMENT UPGRADE

MEDICAL CENTER OF AURORA

1501 S. POTOMAC ST.
AURORA, CO 80012

SOUTH CAMPUS

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
07.25.18
LICENSED ARCHITECT

PROJECT NO.: 18-11

DRAWN BY: TH, BEPS
CHECKED BY: TT
SCALE: N/A
DATE: 07.25.2018
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
COVER SHEET

SHEET NO.:
A0.0

DWG FILENAME: SC NUC MED SHEET SIZE: 36" x 24"

RSN: *1312470*
Permit #: *2018-1509154-LT*

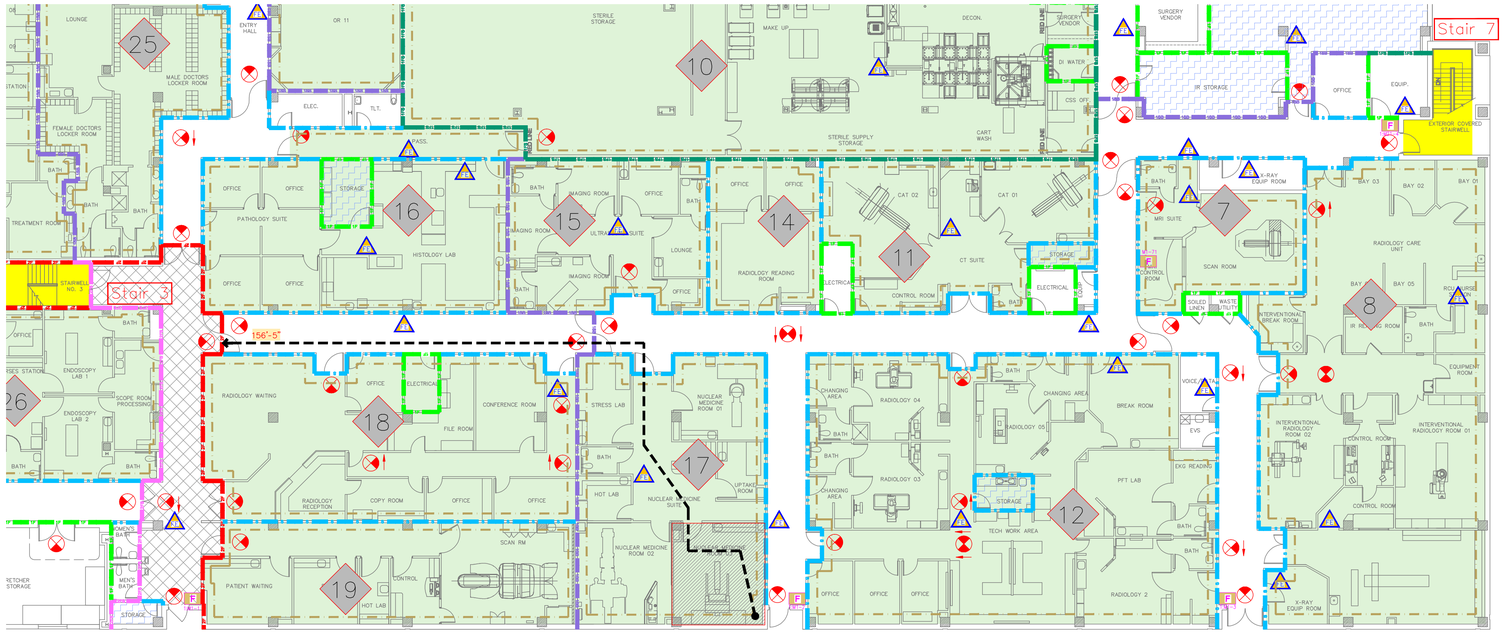
CODE INFORMATION SUMMARY

CONSTRUCTION TYPE: I-A TYPE IBC / I(332) NFPA
FULLY SPRINKLED
STEEL STRUCTURE WITH SPRAY FIRE-PROOFING AND CONCRETE STRUCTURE
FIVE STORY BUILDING

OCCUPANCY CLASSIFICATION: IBC - GROUP I-2 HOSPITAL
NFPA - HEALTHCARE OCCUPANCY CHP. 18

FULLY SPRINKLED BUILDING

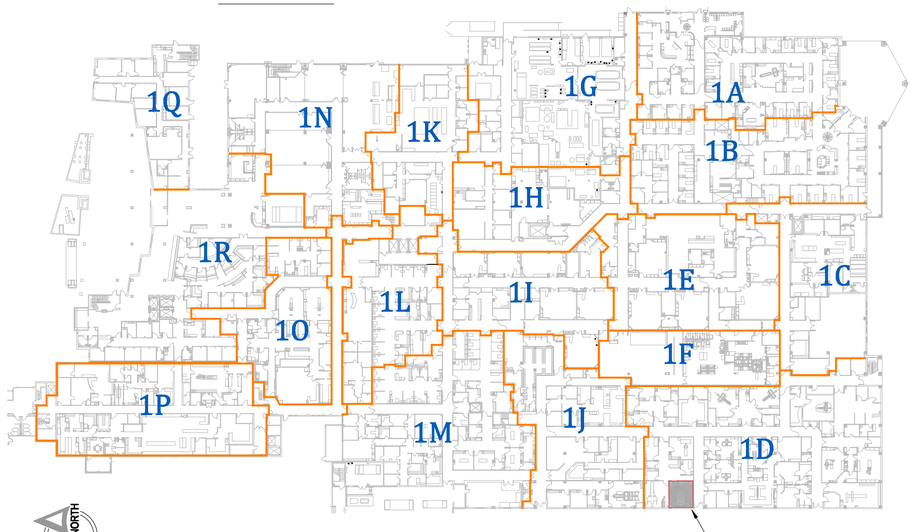
City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Aug 28, 2018
2015 INTERNATIONAL CODES & 2017 NEC



SUITE - AREA KEY NOTES

1 6,834 SQ FT	8 4,132 SQ FT	15 1,292 SQ FT	22 2,714 SQ FT	29 911 SQ FT	36 3,015 SQ FT
2 8,936 SQ FT	9 3,135 SQ FT	16 2,422 SQ FT	23 8,940 SQ FT	30 1,225 SQ FT	37 1,621 SQ FT
3 2,451 SQ FT	10 5,933 SQ FT	17 2,179 SQ FT	24 2,453 SQ FT	31 2,086 SQ FT	38 4,837 SQ FT
4 817 SQ FT	11 1,554 SQ FT	18 2,616 SQ FT	25 1,842 SQ FT	32 3,933 SQ FT	
5 3,466 SQ FT	12 4,593 SQ FT	19 1,605 SQ FT	26 2,399 SQ FT	33 1,596 SQ FT	
6 NOT USED	13 8,682 SQ FT	20 4,434 SQ FT	27 4,091 SQ FT	34 3,828 SQ FT	
7 825 SQ FT	14 716 SQ FT	21 1,715 SQ FT	28 1,974 SQ FT	35 5,459 SQ FT	

1ST LEVEL



SMOKE DEPARTMENT - KEY PLAN AREAS

1A	11,964 SQ FT	1G	13,464 SQ FT	1M	17,640 SQ FT
1B	13,178 SQ FT	1H	8,719 SQ FT	1N	13,572 SQ FT
1C	10,250 SQ FT	1I	8,334 SQ FT	1O	8,457 SQ FT
1D	19,537 SQ FT	1J	12,003 SQ FT	1P	12,476 SQ FT
1E	12,575 SQ FT	1K	7,434 SQ FT	1Q	3,933 SQ FT
1F	8,732 SQ FT	1L	8,836 SQ FT	1R	16,810 SQ FT

LEGEND

- S - SMOKE PARTITION
- 1SB - 1 HOUR SMOKE BARRIER FOR COMPARTMENTATION
- 1F - 1 HOUR FIRE BARRIER
- 1FS - 1 HOUR FIRE/SMOKE BARRIER
- 2F - 2 HOUR FIRE BARRIER
- 2FS - 2 HOUR FIRE/SMOKE BARRIER
- STAIRWELL EXIT
- ELEVATOR
- LOW LEVEL HAZARDOUS AREAS ~ must be fully sprinkled ~
- ORDINARY HAZARDOUS AREAS (1 HR FIRE BARRIER REQUIRED) ~ must be fully sprinkled ~
- EXIT PASSAGEWAY
- AREA PROTECTED BY CLEAN AGENT
- F - PULL STATION
- EXIT SIGNS
- FE - FIRE EXTINGUISHER
- X - NON-SLEEPING SUITE DESIGNATION
- X - SLEEPING SUITE DESIGNATION
- SUITE BOUNDARY SEPARATION
- EXIT ACCESS TRAVEL & DISTANCE
- SMOKE COMPARTMENT DESIGNATION
- CHUTES & SHAFTS

The Medical Center of Aurora
Health ONE

NUCLEAR MED EQUIPMENT UPGRADE

MEDICAL CENTER OF AURORA

1501 S. POTOMAC ST.
AURORA, CO 80012

SOUTH CAMPUS

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
LICENSED ARCHITECT
07.25.18

PROJECT NO.: 18-11

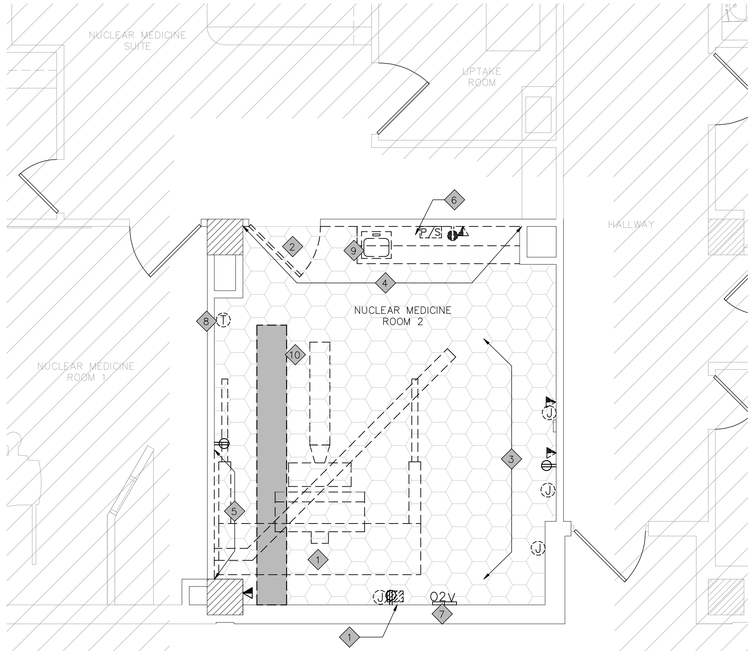
DRAWN BY: TH, BEPS
CHECKED BY: TT
SCALE: NTS
DATE: 07.25.2018
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
CODE COMPLIANCE
LIFE SAFETY

SHEET NO.:
A0.1

DWG FILENAME: SC NUC MED SHEET SIZE: 36" x 24"

RSN: 1312470
Permit #: 2018-1509154-LT



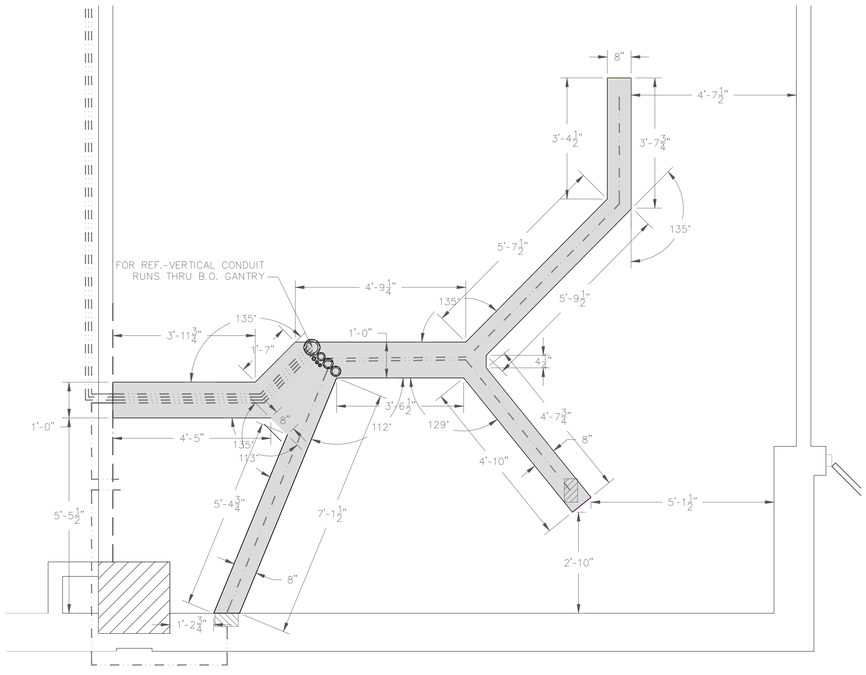
DEMOLITION PLAN
SCALE: 1/4"=1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Aug 28, 2018
2015 INTERNATIONAL CODES & 2017 NEC

REFER TO STRUCTURAL PLANS FOR NECESSARY INFORMATION REGARDING ALL FOUNDATION WORK

DEMOLITION LEGEND	
	REMOVE WALL, CASEWORK, EQUIPMENT & FIXTURES AS INDICATED BY DASHED LINE
	EXISTING ELEMENT TO REMAIN
	EXISTING POWER OUTLET LOCATION TO REMAIN. CHANGE OUTLET & COVER PLATE TO WHITE.
	REMOVE EXISTING FLOORING AS INDICATED BY HATCH PATTERN, PREP SURFACE FOR NEW FLOORING
	REMOVE & DISPOSE OF EXISTING DOOR, FRAME & HARDWARE AS INDICATED BY DASHED LINE
	REMOVE EXISTING POWER OUTLET; TERMINATE, SAFE-OFF AND/OR PREP FOR NEW LOCATION
	REMOVE EXISTING DATA/PHONE; TERMINATE, SAFE-OFF AND/OR PREP FOR NEW LOCATION
T	REMOVE & DISPOSE OF EXISTING THERMOSTAT CONTROLS, PRESERVE CONNECTIONS FOR NEW CONTROL LOCATIONS, RE: MECHANICAL PLAN.
	REPRESENTS FUTURE GE EQUIPMENT CABLE RUNS
	OUT OF SCOPE

KEY NOTES	
1	DISCONNECT EXISTING ELECTRICAL & SAFE-OFF EQUIPMENT FOR REMOVAL BY VENDOR.
2	REMOVE & DISPOSE OF DOOR & FRAME. SALVAGE HARDWARE FOR REUSE.
3	TRENCH LOCATIONS & DIMENSIONS SHOWN DOWN BELOW CONCRETE TO DEPTH REQUIRED FOR CONDUIT BEND RADIUS DETERMINED BY ELECTRICIAN. RE: STRUCTURAL FOR DETAILS.
4	REMOVE EXISTING DRYWALL ON EAST SIDE OF ROOM TO BE REPLACED W/ SPECIFIED LEAD-LINE GYP BOARD, RE: SHIELDING PLANS.
5	REMOVE & DISPOSE PORTION OF DIMENSIONED INTERIOR DRYWALL FOR NEW LEAD-LINED DRYWALL SHIELDING. VERIFY EXTENT OF LEAD LINING IN ADJACENT ROOM.
6	REMOVE & DISPOSE OF EXISTING PHONE/SPEAKER SYSTEM. DRYWALL TO BE REPLACED W/ SPECIFIED LEAD-LINED GYP BOARD.
7	REMOVE EXISTING O2 & VACUUM OUTLETS. LINES TO BE EXTENDED TO NEW LOCATION ON SAME WALL, RE: MECHANICAL & EQUIPMENT PLAN.
8	REMOVE EXISTING THERMOSTAT, PRESERVE CONNECTION FOR NEW JOHNSON CONTROL HOSPITAL STANDARD DEVICE.
9	REMOVE SINK & SALVAGE FOR RELOCATION IN NEW COUNTERTOP @ SAME PLUMBING LOCATION.
10	REMOVE & DISPOSE OF EXISTING FLOOR DUCT, INFILL W/ CONCRETE AS DESCRIBED IN STRUCTURAL PLAN.



CONDUIT TRENCH PLAN
SCALE: 1/2"=1'-0"

DEMOLITION GENERAL NOTES	
A.	CONTRACTOR TO VERIFY ALL ASPECTS OF THE SITE CONFIGURATION BEFORE CONSTRUCTION IS STARTED.
B.	REMOVE & REPLACE ALL EXISTING ELECTRICAL POWER, DATA OUTLET & LIGHT SWITCHES DEVICES AND COVER PLATES TO WHITE.
C.	SALVAGE ANY EXISTING KEYPAD LOCKS TO BE REINSTALLED IN NEW CASEWORK.
D.	SALVAGE EXISTING SINKS & FAUCET HARDWARE TO BE REINSTALLED IN NEW CASEWORK. REPLACE AS NEEDED DEPENDING ON CONDITION.
E.	REMOVE & DISPOSE OF EXISTING UNDER CABINET LIGHT FIXTURES, PRESERVE CONNECTIONS FOR NEW LIGHT FIXTURES AS SHOWN IN RCP.
F.	REPLACE OR REPAIR ANY EXISTING SURFACES WHICH ARE DAMAGED DURING DEMOLITION (I.E. - CEILING GRID, CEILING TILE, WALL COVERING, FLOOR COVERINGS, ETC.).
G.	REMOVE EXISTING FLOORING, ADHESIVE AND MASTIC AT ALL LOCATIONS. PATCH & PREP SUBFLOOR TO MEET MANUFACTURER'S REQUIREMENTS FOR NEW FLOORING MATERIALS. FLOAT SUBFLOOR AS NECESSARY TO ALIGN FINISHED SURFACE BETWEEN NEW FLOORING AND EXISTING TO REMAIN.
H.	EXIT EGRESS MUST BE MAINTAINED AT ALL TIMES THROUGHOUT CONSTRUCTION.
I.	REMOVE WALLPAPER BORDER FROM TOP OF WALL ALL AROUND TOP OF WALL IN ROOM AND PREP FOR PAINT.
J.	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.
K.	ALL EXISTING X-RAY EQUIPMENT TO BE REMOVED BY HOSPITAL SUPPLIED VENDOR. CONTRACTOR TO PROVIDE SUPPORT AS NEEDED & WILL NEED INCLUDE ALL ELECTRICAL DEMOLITION IN SCOPE OF WORK.
L.	WHERE EXISTING FLOOR DUCT IS REMOVED, BACKFILL W/ CONCRETE TO LEVEL OF EXISTING FLOOR & STRUCTURAL SPECIFICATIONS. RE: STRUCTURAL
M.	WHERE POWER OUTLETS ARE SHOWN TO BE REMOVED, TERMINATE & SAFE-OFF CONNECTION AS REQUIRED BY CODE. PATCH & PREP WALL FOR PAINT.
N.	REMOVE & DISPOSE OF ALL EXISTING, UNUSED ABOVE CEILING CABLING, CONDUITS & RACEWAYS.
O.	REFER TO STRUCTURAL DRAWINGS FOR REMOVAL & REPLACEMENT OF CONC. FLOOR SLAB.

The Medical Center of Aurora
Health ONE

NUCLEAR MED EQUIPMENT UPGRADE

MEDICAL CENTER OF AURORA

1501 S. POTOMAC ST.
AURORA, CO 80012

SOUTH CAMPUS

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

ASSOCIATIONS

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.

STATE OF COLORADO
TOM THOMPSON
305692
01.25.19
LICENSED ARCHITECT

PROJECT NO.: 18-11

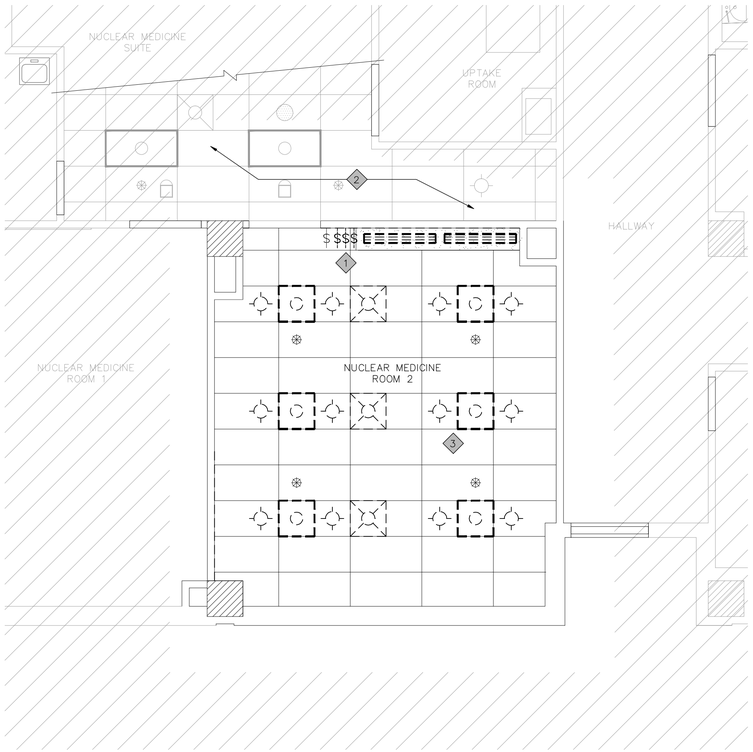
DRAWN BY: TH, BEPS
CHECKED BY: TT
SCALE: 1/4"=1'-0"
DATE: 07.25.2018
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
DEMOLITION PLAN

SHEET NO.:
A1.0

DWG FILENAME: SC NUC MED SHEET SIZE: 36" x 24"

RSN: *1312470*
Permit #: *2018-1509154-LT*



City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Aug 28, 2018
2015 INTERNATIONAL CODES & 2017 NEC

CEILING LEGEND	
	REMOVE & DISPOSE OF EXISTING 2'x4' FLUORESCENT LIGHT FIXTURE. PRESERVE ELECT. CONNECTIONS FOR NEW FIXTURE.
	REMOVE & DISPOSE OF EXISTING 8" CAN LIGHT. PRESERVE ELECT. CONNECTIONS FOR NEW FIXTURE.
	REMOVE & DISPOSE OF EXISTING UNDER CABINET FLUORESCENT LIGHT FIXTURE.
	REMOVE & DISPOSE OF EXISTING SUPPLY AIR REGISTER.
	EXISTING CEILING GRID TO REMAIN THROUGHOUT. REMOVE & DISPOSE OF CEILING TILE.
	EXISTING EXIT LIGHT TO REMAIN.
	EXISTING SPRINKLER HEAD TO REMAIN
	EXISTING GYPSUM BOARD CEILING OR SOFFIT TO REMAIN..
$	EXISTING LIGHT SWITCH LOCATION TO REMAIN.
$	REMOVE EXISTING LIGHT SWITCH, CHANGE DEVICE & COVER PLATE TO WHITE
	OUT OF SCOPE

KEY NOTES	
1	EXISTING LIGHT SWITCH CIRCUITS TO REMAIN. REMOVE BEIGE COVERPLATES AND SWITCHES AND REPLACE WITH WHITE.
2	THIS AREA IS SHOWN FOR LOCATION OF TEMPORARY WALL CONSTRUCTION ONLY. ALL EXISTING CEILING TILES, LIGHT FIXTURES, SPRINKLER HEADS, ETC. ARE TO REMAIN IN THIS AREA.
3	REMOVE WIRELESS ACCESS POINT BOX, SALVAGE FOR IT DEPT. DOES NOT REINSTALL IN NEW CEILING.

DEMOLITION GENERAL NOTES	
A.	REMOVE & DISPOSE OF ALL EXISTING LIGHT FIXTURES. PRESERVE ELECTRICAL CONNECTIONS IN PLACE FOR NEW LIGHT FIXTURES. RE: ME CONSTRUCTION DOCUMENTS.
B.	REMOVE & DISPOSE OF ALL EXISTING SUPPLY AIR DIFFUSERS. REPLACE WITH NEW, OWNER APPROVED STYLE. COLOR: WHITE. RE: RCP
C.	REMOVE & DISPOSE OF ALL EXISTING CEILING TILES.

NORTH

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

DWG FILENAME: SC NUC MED SHEET SIZE: 36" x 24"

The Medical Center of Aurora
Health ONE

NUCLEAR MED EQUIPMENT UPGRADE

MEDICAL CENTER OF AURORA

1501 S. POTOMAC ST.
AURORA, CO 80012

SOUTH CAMPUS

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

ASSOCIATIONS

dp LOT DESIGN
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
07.25.18
LICENSED ARCHITECT

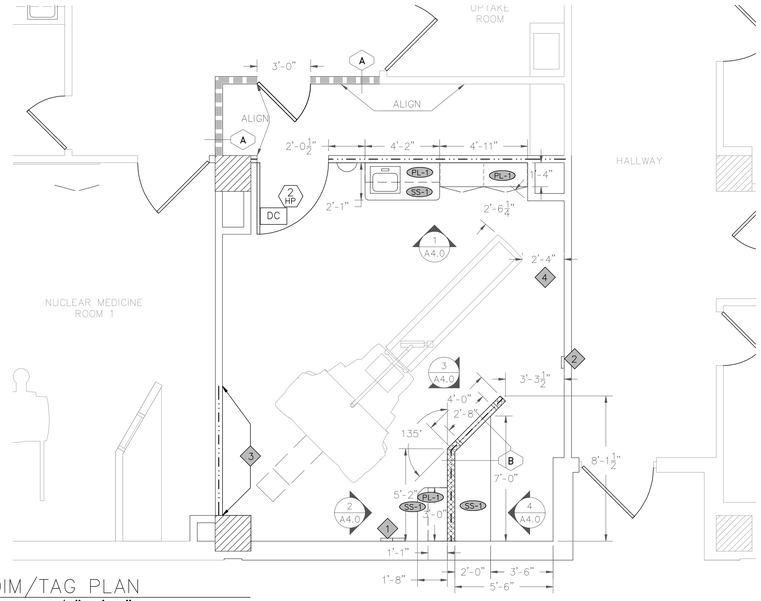
PROJECT NO.: 18-11

DRAWN BY: TH, BEPS
CHECKED BY: TT
SCALE: 1/4"=1'-0"
DATE: 07.25.2018
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
CEILING DEMOLITION PLAN

SHEET NO.:
A1.1

RSN: 1312470
Permit #: 2018-1509154-LT



DIM/TAG PLAN
SCALE: 1/4"=1'-0"

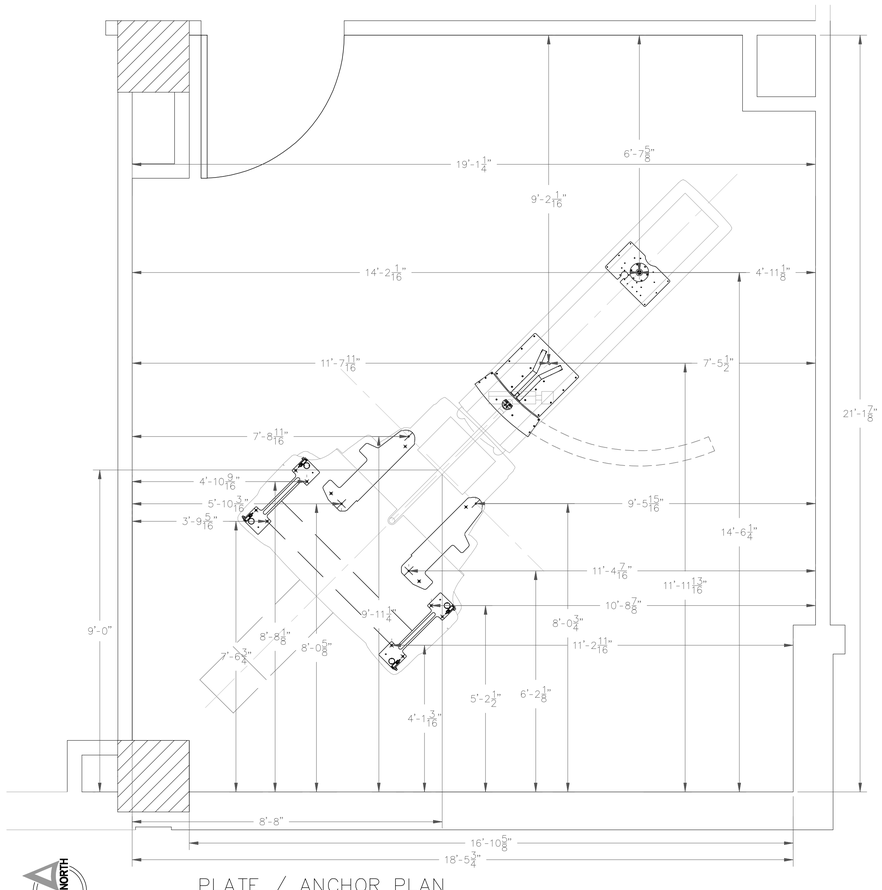


PLATE / ANCHOR PLAN
SCALE: 1/2"=1'-0"

NORTH

DWG FILENAME: SC NUC MED SHEET SIZE: 36" x 24"

CONSTRUCTION LEGEND	
	WALL TYPE 'A': NEW TEMPORARY WALLS BUILT TO B.O. CEILING GRID. REMOVE AFTER ROOM CONSTRUCTION IS COMPLETE. REPAIR ADJACENT SURFACES AS REQUIRED TO MATCH AND BLEND WITH EXISTING.
	WALL TYPE 'B': NEW PARTIAL (8'-0") HEIGHT WALLS WITH 3/64" LEAD LINING @ 7'-0" A.F.F.
	EXISTING WALLS TO STRUCTURE ABOVE
	EXISTING WALLS TO BE UPGRADED WITH LEAD-LINED DRYWALL TO 7'-0" A.F.F. BACK NEW & EXISTING WALL OUTLETS & SWITCHES WITH LEAD. SEE PHYSICIST REPORT FOR LEAD REQUIREMENTS

LOCK TYPE
OF OFFICE SET
HP HOSPITAL LATCH
PASSAGE SET

DC - DOOR CLOSURE HARDWARE W/ HOLD OPEN

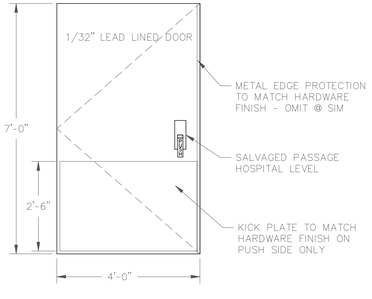
SCHEDULED DOOR NUMBER
LOCK TYPE
WALL TYPE
ELEVATION NUMBER
SHEET NUMBER
CROSS SECTION

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Aug 28, 2018
2015 INTERNATIONAL CODES & 2017 NEC

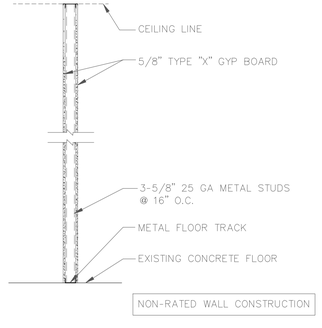
KEY NOTES	
1	RELOCATED MEDICAL GASSES, RE: MECHANICAL
2	EXISTING CODE BLUE SWICTH TO REMAIN.
3	PHYSICIST TO VERIFY LEAD LINING IS PRESENT IN EXISTING WALL. U.O.N. UPGRADE WALL WITH LEAD-LINED DRYWALL.
4	REQ. MINIMUM CLEARANCE OF 2'-4" PER NFPA 101 CODE FOR EGRESS. SCHEDULE W/ GE REP TO CONFIRM TABLE DIMENSIONS PRIOR TO ANCHOR DRILLING.

GENERAL NOTES	
A.	GENERAL CONTRACTOR TO ADD ALLOWANCE FOR MOUNTING PATIENT CARE ITEMS FOR ALL EXAM/TREATMENT ROOMS.
B.	REPLACE ALL EXISTING ELECTRICAL POWER, DATA OUTLET & LIGHT SWITCHES DEVICES AND COVERPLATES TO WHITE.
C.	REPLACE ALL EXISTING THERMOSTATS TO NEW JOHNSON CONTROLS DIGITAL FORMAT TO MATCH HOSPITAL STANDARDS.
D.	CONTRACTOR TO VERIFY ALL DOOR OPENING SIZES. IF IN GOOD CONDITION REUSE HANDLE HARDWARE.
E.	PATCH AND REPAIR ALL ADJACENT SURFACES AFTER TEMPORARY WALLS ARE REMOVED TO MATCH AND BLEND WITH EXISTING CONSTRUCTION TO REMAIN.
F.	REVIEW & INCLUDE ALL NOTES FROM THE GE SITE SPECIFIC PLANS ATTACHED TO THIS CONSTRUCTION DOCUMENT SET AS PART OF CONSTRUCTION.
G.	DIMENSIONS ARE TO FINISHED SURFACES OF ROOM. CONTRACTOR TO FIELD VERIFY & CONFIRM DIMENSIONS. DIMENSIONS ON GE 640 EQUIPMENT ARE FOR REFERENCE ONLY. SEE GE SITE SPECIFIC DRAWINGS FOR MOUNTING PLATE LOCATIONS & EQUIPMENT PLACEMENT DIMENSIONS.
H.	CONTRACTOR IS RESPONSIBLE FOR ALL DRILLING & SAW CUTTING NECESSARY TO PREP THE SITE.
I.	VERIFY W/ GE SITE SPECIFIC PLANS ALL DIMENSIONS & PLATE INSTALL INSTRUCTIONS. MOUNTING PLATES WILL BE DELIVERED DURING CONSTRUCTION.
J.	REFERENCE ELECTRICAL PLANS & GE SHEETS E1 & E2 FOR ELECTRICAL CONDUIT RUNS. PLAN TRENCHING & FLOOR/WALL DUCT RUNS ACCORDINGLY.
K.	REFERENCE GE PRE-INSTALLATION MANUAL FOR DRILLING AND ANCHORING CHART & REQUIREMENTS. OWNER TO SCHEDULE GE REP TO INSPECT AND VERIFY ANCHOR LOCATIONS PRIOR TO ANY DRILLING.
L.	REFERENCE GE'S PRE-INSTALLATION MANUAL IN CONJUNCTION WITH DRAWINGS & SPECIFICATIONS FOR COMPLETE INFORMATION.
M.	REFERENCE SHIELDING PLAN FOR LEAD-LINED SPECIFICATIONS & CONFIRM FACILITY ASSUMPTIONS.
N.	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.
O.	FLUSH MOUNT ALL NEW WALL DUCTS. PLACE LEAD LINING BEHIND DUCT TO MAINTAIN PROTECTION.
P.	DIMENSIONS IN PLATE/ANCHOR PLAN ARE SHOWN WITHIN 1/16" PRECISION. MARK LOCATIONS & CONFIRM W/ GE INSTALL REP BEFORE DRILLING. CONTRACTOR TO VERIFY EXISTING ROOM DIMENSIONS & REPORT ANY DISCREPANCIES FOUND W/ THE ARCHITECT.

DOOR SCHEDULE									
DOOR NO.	DOOR SIZE			TYPE/LABEL	LOCK TYPE	HARDWARE	FRAME	FRAME DEPTH	REMARKS
	WIDTH	HEIGHT	DEPTH						
1	4'-0"	7'-0"	1-3/4"	A/NON RATED	HP	SATIN NICKEL	R.H.-H.M.	4-7/8"	SOLID CORE, OAK VENEER, LEAD LINED DOOR AND FRAME - FINISH TO MATCH EXISTING SUITE STANDARDS

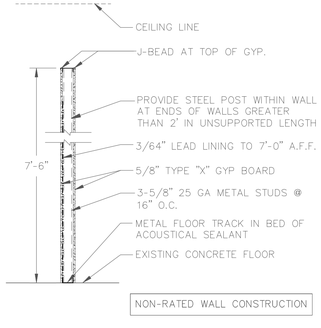


A DOOR TYPE "A"
SCALE: 1/2"=1'-0"



NON-RATED WALL CONSTRUCTION

A WALL TYPE "A"
SCALE: 1/2"=1'-0"



NON-RATED WALL CONSTRUCTION

B WALL TYPE "B"
SCALE: 1/2"=1'-0"

The Medical Center of Aurora
Health ONE

NUCLEAR MED EQUIPMENT UPGRADE

MEDICAL CENTER OF AURORA

1501 S. POTOMAC ST.
AURORA, CO 80012

SOUTH CAMPUS

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
07.25.18
LICENSED ARCHITECT

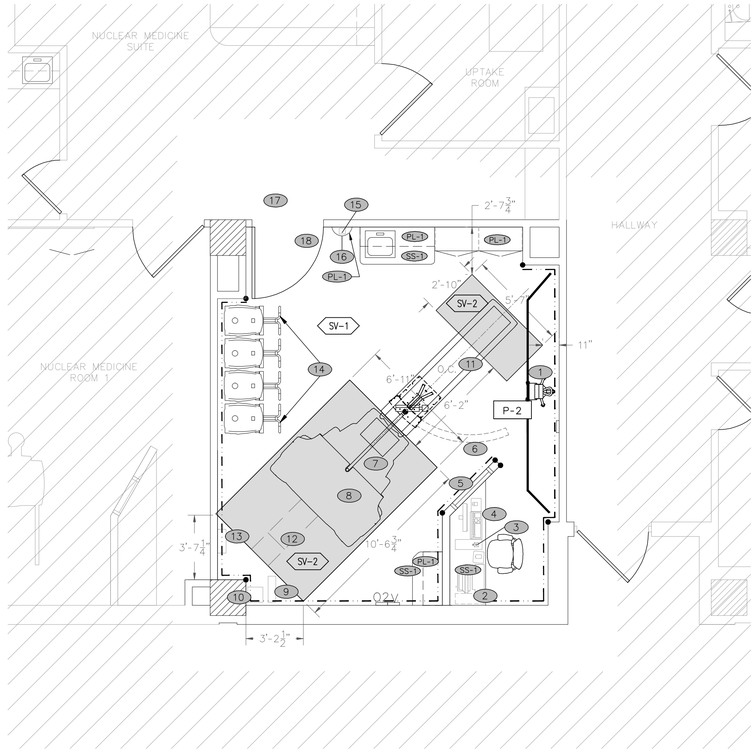
PROJECT NO.: 18-11

DRAWN BY: TH, BEPS
CHECKED BY: TT
SCALE: AS NOTED
DATE: 07.25.2018
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
DIMENSION/SCHEDULE TAG PLAN

SHEET NO.:
A1.2

RSN: *1312470*
Permit #: *2018-1509154-LT*



PATIENT CARE ITEMS (INCLUDING BUT NOT LIMITED TO)

- SHARP CONTAINERS
- PPE BOXES
- PAPER TOWEL, SOAP, GEL DISPENSER
- IV BAG HOOKS
- TELEVISION
- GLOVE DISPENSERS
- DRY ERASE BOARD
- BED BOARDS
- EMERGENCY MEDICAL BOX
- CLOCKS

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Aug 28, 2018
2015 INTERNATIONAL CODES & 2017 NEC

LEGEND	
	SLATE 48" ACROVYN CORNER GUARD MOUNTED ABOVE WALL BASE, T.O. @ 54" A.F.F.
	SLATE ACROVYN WALL PANELS MOUNTED ABOVE 6" WALL BASE, T.O. @ 54" A.F.F.
XX-1	FLOORING TYPE
XX-1	CASEWORK FINISH
P-2	WALL ACCENT PAINT SELECTION / LOCATION TAG
	OUT OF SCOPE

FINISH SPECIFICATIONS

FLOORING

SV-1: SHEET VINYL TARKETT OPTIMA COLOR: 862 RAW IVORY W/6" COVED BASE W/ MATCHING WELDING ROD
SV-2: SHEET VINYL IQ OPTIMA FOREST THICKETT 3242249
B-2: 6" COVED BASE FINISHED WITH J-TRIM JOHNSONITE OPTIMA RAW IVORY

WALLS

P-1: (FIELD COLOR) SHERWIN WILLIAMS, SEMI-GLOSS INTERIOR PAINT, 2 COATS ON WALLS. COLOR: SW 6106 (KILIM BEIGE).
P-2: (ACCENT COLOR) SHERWIN WILLIAMS, SEMI-GLOSS INTERIOR PAINT, 2 COATS ON WALLS, COLOR: SW 7748 (GREEN EARTH).
P-3: (DOOR FRAMES) SHERWIN WILLIAMS, SEMI-GLOSS INTERIOR PAINT, 2 COATS. COLOR: SW 7633 (TAUPE TONE).

CASEWORK

PL-1: 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: APPLY TO ALL COUNTER TOP LOCATIONS, CORIAN, PRIVATE COLLECTION COLOR: CLAM SHELL

WALL PROTECTION

WP-1 - INSTALL @ 54" AFF (48" SHEETS) ACROVYN WALL PANELING - SLATE 209 SUEDE TEXTURE, 48"h x 10' x .06" THICK.
WP-2 - 48" x 2" ACROVYN CORNER GUARDS - SLATE 209 SUEDE TEXTURE. INSTALL @ T.O. COVED FLOORING BASE.

EQUIPMENT KEY NOTES	
1	IV MOBILE CART
2	XELERIS WORKSTATION
3	E-STOP BUTTON
4	OPTIMA NM/CT 640 AQUISITION WORKSTATION
5	CONTRACTOR SUPPLIED / CONTRACTOR INSTALLED LEAD GLASS WINDOW & FRAME ASSEMBLY, RE: ELEVATIONS FOR DIMENSIONS.
6	TABLE SWING PLATE FOR COLLIMATOR EXCHANGE
7	OPTIMA NM/CT 640 GANTRY (NUCLEAR)
8	OPTIMA NM/CT 640 GANTRY (CT)
9	6 KVA UPS
10	TRANSFORMER FOR 6 KVA UPS
11	OPTIMA NM/CT 640 TABLE
12	LIMIT OF TABLE TRAVEL
13	CONTRACTOR SUPPLIED / CONTRACTOR INSTALLED MAIN DISCONNECT CONTROL, CAT. NO. E4502SU
14	COLLIMATOR CARTS
15	EMO PUSH BUTTON
16	CONTRACTOR INSTALLED SHELF FOR EMO PUSH BUTTON
17	CONTRACTOR INSTALLED "X-RAY ON" WARNING LIGHT, RE: GE PLANS FOR SPEC
18	X-RAY WARNING LIGHT CONTROL PANEL, RE: GE PLANS FOR DETAILS

GENERAL NOTES	
A.	INSTALL NEW CABINET LOCKS AT LOCATIONS WHERE SHOWN ON ELEVATIONS. KITLOCK KL1000
B.	SPECIFY BRUSHED NICKEL HARDWARE FOR CASEWORK.
C.	PROVIDE 4" BACKSPLASH OF LIKE MATERIAL AT ALL LOCATIONS WHERE COUNTERS MEET WALLS.
D.	ALL CABINETS TO HAVE ADJUSTABLE SHELVING AS SHOWN IN ELEVATIONS/CROSS SECTIONS BY DASHED LINE.
E.	REPLACE ALL EXISTING ELECTRICAL POWER, DATA OUTLET & LIGHT SWITCHES DEVICES AND COVERPLATES TO WHITE.
F.	NEW PAINT ON ALL WALLS THROUGHOUT.
G.	INSTALL SPECIFIED WALL BASE ALONG FRONT SIDE OF ALL CASEWORK, VERTICAL TOE-KICK PANELS.
H.	APPLY 3mm RUBBER EDGES TO ALL NEW PLASTIC LAMINATE COUNTERTOPS, DRAWERS, AND DOORS.
I.	FLOOR SLAB NEEDS TO BE LEVEL TO 1/8" OVER 10'. OWNER TO CONTACT GE REP TO INSPECT BEFORE FLOOR FINISHES ARE INSTALLED.
J.	CONTRACTOR TO PROVIDE WALL BACKING FOR ALL WALL HUNG EQUIPMENT & CABINETS.
K.	CONTRACTOR TO COORDINATE WITH OWNER & SUPPORT THE NEEDS OF THE INSTALLATION TEAM BEFORE & DURING SET-UP.
L.	GENERAL CONTRACTOR TO ADD ALLOWANCE FOR MOUNTING PATIENT CARE ITEMS FOR ALL EXAM/TREATMENT ROOMS
M.	OWNER VENDOR TO INSTALL ALL LOW VOLTAGE CABLING.
N.	DIMENSIONS SHOWN ARE FOR FLOORING INSTALLATION OF SV-2 LOCATIONS ONLY.
O.	APPLY ACROVYN SPECIFIED SILICON CAULK TO ALL EDGES OF WALL PANELING, SELECT MATCHING CAULK COLOR TO WALL PROTECTION.

NORTH

EQUIPMENT / FINISHES PLAN
SCALE: 1/4"=1'-0"

DWG FILENAME: SC NUC MED SHEET SIZE: 36" x 24"

The Medical Center of Aurora
HealthONE

NUCLEAR MED EQUIPMENT UPGRADE

MEDICAL CENTER OF AURORA

1501 S. POTOMAC ST.
AURORA, CO 80012

SOUTH CAMPUS

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
305692
07.25.18
LICENSED ARCHITECT

PROJECT NO.: 18-11

DRAWN BY: TH, BEPS
CHECKED BY: TT
SCALE: 1/4" = 1'
DATE: 07.25.2018
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
EQUIPMENT FINISHES PLAN

SHEET NO.:
A1.3

RSN: 1312470
Permit #: 2018-1509154-LT

X-RAY SHIELDING DESIGN CALCULATIONS

AND RECOMMENDATIONS

PROJECT:
SPECT CT Upgrade – GE Optima 640 NM/CT
The Medical Center of Aurora
1501 S Potomac Ave
Aurora, CO

CONTACTS:
Christelle Friedland
Radiology Director
Christelle.Friedland@HealthOneCares.com

May 25, 2018
Date

Nathan Busse, M.S., DABR, QE #238
Medical Radiation Physicist

All required shielding is identified on attached layout. Calculations and assumptions are outlined in the report. For further information, please call Nathan Busse at (502) 758-1093 or email at n.busse@campphysics.com

RADIOGRAPHIC SHIELDING

PREFACE

These calculations are done according to, and consistent with recommendations contained in the National Council on Radiation Protection and Measurements (NCRP) Report No. 49 entitled, "Structural Shielding Design and Evaluation for Medical Use of X-rays and Gamma Rays of Energies up to 10 MeV" and Report No. 147 "Structural Shielding Design for Medical Imaging Facilities". The calculations herein are based on a design limit of 20 µGy/week to members of the general public and 100 µGy/week to occupationally exposed workers whose dose is monitored. This is consistent with 10 CFR Part 20, State of Colorado Regulations 6 CCR 1007, and with the International Commission on Radiological Protection Publication No. 26 to keep exposures "As Low As Reasonably Achievable" (ALARA).

FACILITY ASSUMPTIONS

1. Walls are assumed to include two 5/8 inch gypsum sheets, with a 3 inch interspace. Doors are assumed to be 2 inch thick and of solid core construction. Windows are assumed to be glass or acrylic. Windows are assumed to have zero lead equivalence.

2. This is a single story section of the building, slab on grade. The nuclear medicine department is located on the first floor. The floor to roof distance is assumed to be 13 feet.

3. The occupancy factor (T) is often assumed to be greater than it actually is. This conservative estimate will allow for the occupancy to be upgraded without the need for shielding modifications.

4. Patient workload is assumed to be 40 patients per week each receiving 40 mCi Tc-99m with each patient spending 40 minutes on each scanner. Each patient is assumed to receive an attenuation correction CT only. It is assumed that no diagnostic CT scans will be done on this scanner.

SHIELDING SPECIFICATIONS

1. Window thickness shall be specified in millimeter lead equivalence (mm Pb e.q.), and will be at least that of the surrounding wall, 1.19 mm lead (3/64"). Door thicknesses shall be specified in millimeter lead equivalence (mm Pb e.g.), and will be at least that of the surrounding wall. For the door from the hallway to the scan room this is 0.79 mm lead (1/32").

2. The lead shielding shall extend to a height of 7 feet. 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.

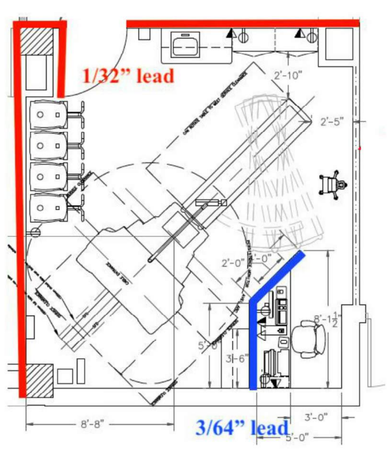
3. It is important to note that the recommended shielding is the minimum thickness required. However, it may turn out that a thicker lead is less expensive or more easily available. In that case, it is advisable to use the thicker lead as a cost-effective alternative.

4. See color diagram below for required lead thicknesses. Hallway and exterior require no lead.

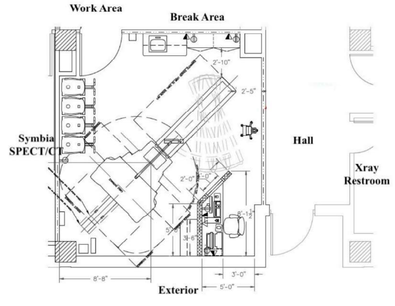
5. The floor and ceiling have no shielding requirement.

Required Shielding

Special inspection verifying the required lead protectives required



Floorplan



City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Aug 28, 2018
2015 INTERNATIONAL CODES & 2017 NEC

DWG FILENAME: SC NUC MED SHEET SIZE: 36" x 24"

The Medical Center of Aurora
Health ONE

NUCLEAR MED EQUIPMENT UPGRADE

MEDICAL CENTER OF AURORA

1501 S. POTOMAC ST.
AURORA, CO 80012

SOUTH CAMPUS

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
07.25.18
LICENSED ARCHITECT

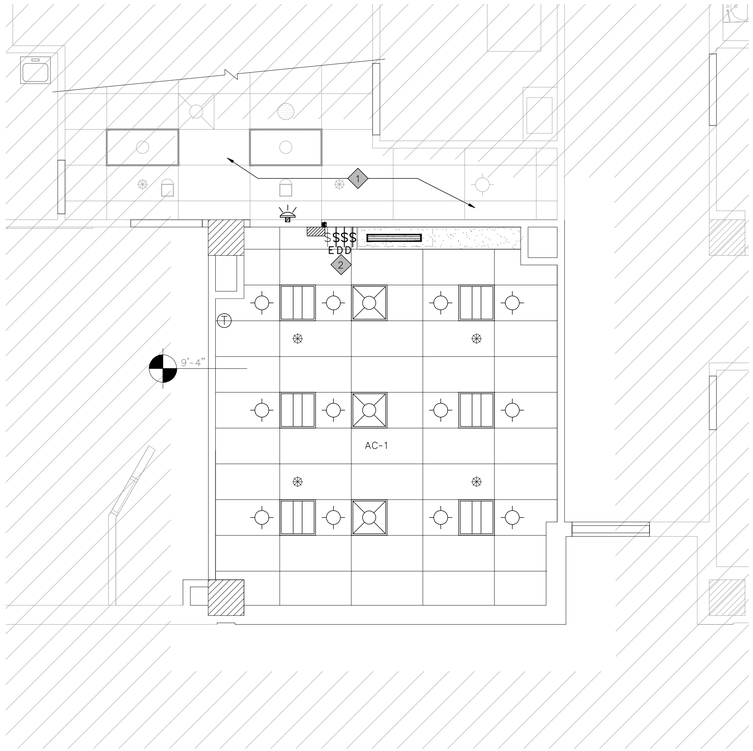
PROJECT NO.: 18-11

DRAWN BY: TH, BEPS
CHECKED BY: TT
SCALE: NTS
DATE: 07.25.2018
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
SHIELDING CALCS & PLAN

SHEET NO.:
A1.4

RSN: 1312470
Permit #: 2018-1509154-LT



City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Aug 28, 2018
2015 INTERNATIONAL CODES & 2017 NEC

CEILING LEGEND	
	EXISTING GRID CEILING SYSTEM, PAINTED W/ NEW ARMSTRONG LAY-IN DUNE CEILING TILES
	EXISTING GYPSUM BOARD CEILING OR SOFFIT TO REMAIN.
	NEW LED FLAT PANEL 2' X 2' LIGHT FIXTURE, LITHONIA FIXTURE W/ DIMMABLE DRIVER, RE: LIGHTING PLAN
	NEW UNDER CABINET LED LIGHT FIXTURE, RE: LIGHTING PLAN
	NEW 6" LED RECESSED DOWNLIGHT W/ DIMMABLE DRIVER, RE: LIGHTING PLAN
	NEW 2'x2' TITUS ALUMINUM, ADJUSTABLE 3 CONE AIR SUPPLY DIFFUSER, WHITE
T	THERMOSTAT
	EXISTING SPRINKLER HEAD
	X-RAY WARNING LIGHT
	CEILING HEIGHT DESIGNATION PER AREA.
$	LIGHT SWITCH, CHANGE DEVICE & COVER PLATE TO WHITE.
	OUT OF SCOPE

KEY NOTES	
1	THIS AREA IS SHOWN FOR LOCATION OF TEMPORARY WALL CONSTRUCTION ONLY. ALL EXISTING CEILING TILES, LIGHT FIXTURES, SPRINKLER HEADS, ETC. ARE TO REMAIN IN THIS AREA. PATCH GRID AND REPLACE CEILING TILES AS REQUIRED AFTER WALL IS REMOVED TO MATCH AND BLEND WITH EXISTING.
2	NEW DEVICES AND COVERPLATES ONLY. TIE INTO EXISTING CIRCUITING.

GENERAL NOTES	
A.	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.
B.	EXISTING SUSPENDED CEILING HEIGHT TO REMAIN @ 9'-4".
C.	REFER TO ENGINEERED LIGHTING PLAN FOR LIGHT FIXTURE SELECTION SPECIFICATIONS.
D.	REFER TO ELECTRICAL LIGHTING PLAN FOR EMERGENCY POWERED/CRITICAL CIRCUIT LIGHTING LOCATIONS.
E.	PAINT EXISTING CEILING GRID BRIGHT WHITE SEMI-GLOSS BEFORE LAYING IN NEW TILE.
F.	INSTALL NEW ARMSTRONG DUNE LAY-IN CEILING TILES.
G.	INSTALL ALL NEW CEILING AIR SUPPLY REGISTERS AS SPECIFIED.
H.	CONNECT NEW AIR SUPPLY REGISTERS IN NEW ROOMS TO EXISTING DUCTWORK IN PLACE.
I.	REPLACE ALL EXISTING LIGHT SWITCHES DEVICES AND COVERPLATES TO WHITE.
J.	CONTRACTOR TO RE-BALANCE HVAC SYSTEM TO MEET SPECIFIED REQUIREMENTS FOR TEMP & AIR FLOW AS DESCRIBED IN MECHANICAL & GE SITE SPECIFIC DRAWINGS.
K.	ALL EXISTING FIRE DETECTION & SUPPRESSION LOCATIONS TO REMAIN.

FINISH SPECIFICATIONS
CEILING
AC-1: ARMSTRONG ACOUSTIC CEILING TILE, DUNE, 2'x4' WHITE, SQUARE LAY-IN FOR EXISTING GRID SYSTEM.

NORTH

REFLECTED CEILING PLAN
SCALE: 1/4"=1'-0"

DWG FILENAME: SC NUC MED SHEET SIZE: 36" x 24"

The Medical Center of Aurora
HealthONE

NUCLEAR MED EQUIPMENT UPGRADE

MEDICAL CENTER OF AURORA

1501 S. POTOMAC ST.
AURORA, CO 80012

SOUTH CAMPUS

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
305692
07.25.18
LICENSED ARCHITECT

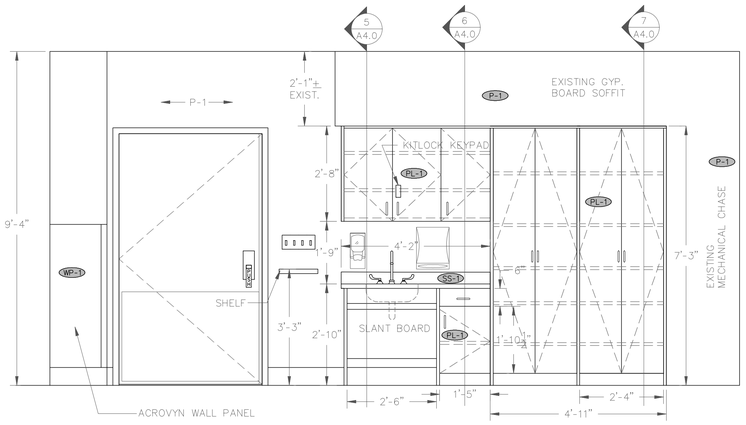
PROJECT NO.: 18-11

DRAWN BY: TH, BEPS
CHECKED BY: TT
SCALE: 1/4"=1'-0"
DATE: 07.25.2018
ISSUED FOR: CONSTRUCTION
REVISIONS:

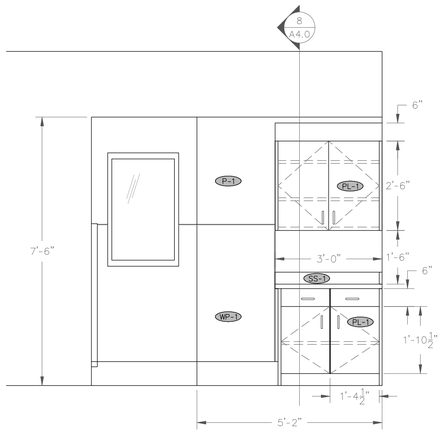
SHEET TITLE:
REFLECTED CEILING PLAN

SHEET NO.:
A1.5

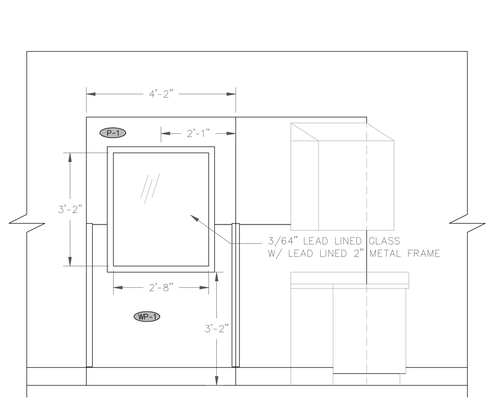
RSN: 1312470
Permit #: 2018-1509154-LT



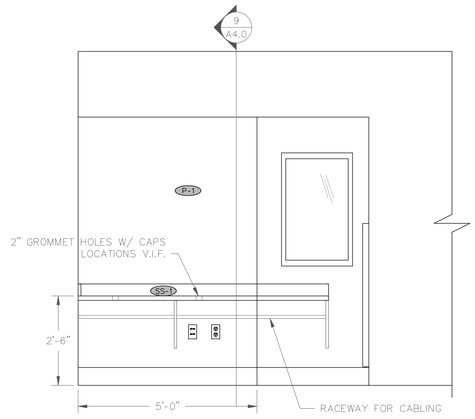
1 A4.0 CASEWORK
SCALE: 1/2"=1'-0"



2 A4.0 CONTROL ROOM
SCALE: 1/2"=1'-0"

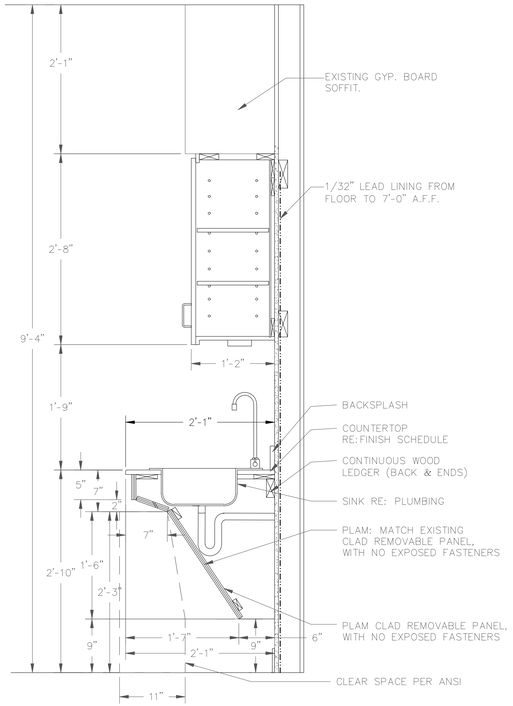


3 A4.0 CONTROL ROOM
SCALE: 1/2"=1'-0"

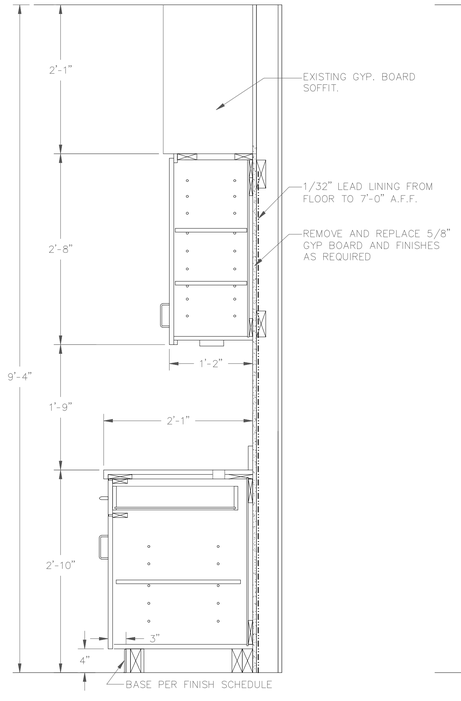


4 A4.0 CONTROL ROOM
SCALE: 1/2"=1'-0"

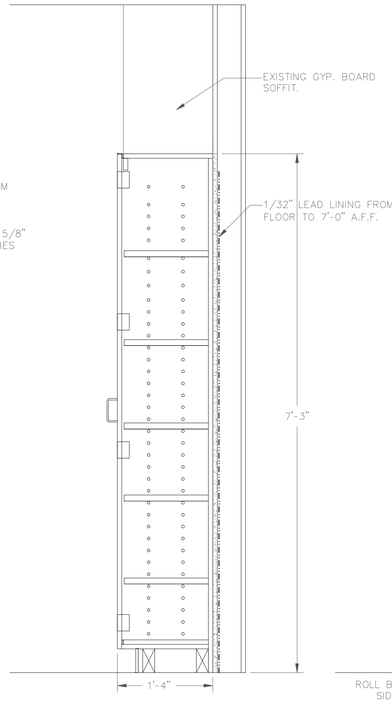
City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Aug 28, 2018
2015 INTERNATIONAL CODES & 2017 NEC



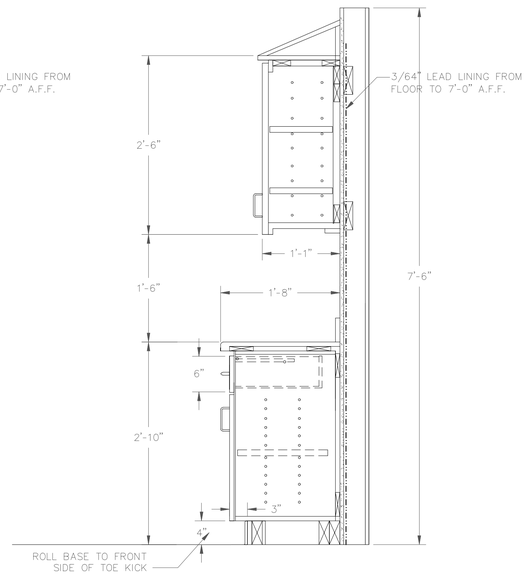
5 A4.0 CASEWORK SECTION
SCALE: 1"=1'-0"



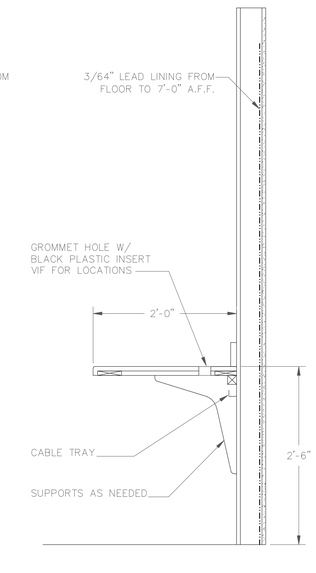
6 A4.0 CASEWORK SECTION
SCALE: 1"=1'-0"



7 A4.0 CASEWORK SECTION
SCALE: 1"=1'-0"



8 A4.0 CONTROL STATION
SCALE: 1"=1'-0"



9 A4.0 CONTROL STATION
SCALE: 1"=1'-0"

DWG FILENAME: SC NUC MED SHEET SIZE: 36" x 24"

The Medical Center of Aurora
Health ONE

NUCLEAR MED EQUIPMENT UPGRADE

MEDICAL CENTER OF AURORA

1501 S. POTOMAC ST.
AURORA, CO 80012

SOUTH CAMPUS

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
07.25.18
LICENSED ARCHITECT

PROJECT NO.: 18-11

DRAWN BY: TH, BEPS
CHECKED BY: TT
SCALE: AS NOTED
DATE: 07.25.2018
ISSUED FOR: CONSTRUCTION
REVISIONS:

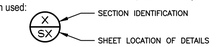
SHEET TITLE:
ELEVATIONS/ SECTIONS

SHEET NO.:
A4.0

RSN: 1312470
Permit #: 2018-1509154-LT

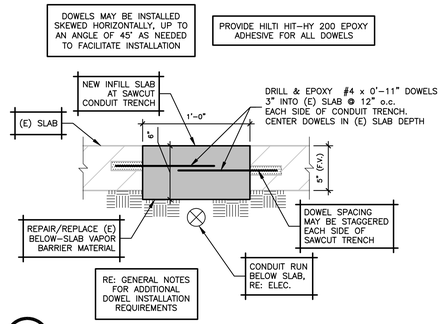
GENERAL NOTES

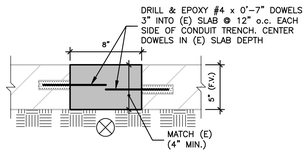
1. Design Standards:
   - A. International Building Code 2015 Edition
   - B. ASCE 7-10 Minimum Design Loads for Buildings and Other Structures
   - C. ACI 318-14 Building Code Requirements for Structural Concrete
2. Gravity Loads Used in Design:
   - A. Nuc Med Gantry Equipment 4,828 lbs.
   - B. CT Gantry Equipment 1,984 lbs.
   - C. Patient Table 1,228 lbs.
3. Foundations:
   - A. Maximum total load soil bearing pressure capacity considered in design is 1,000 psf.
4. Concrete:
   - A. All concrete shall be made with stone aggregate and shall develop a minimum 28 day compressive strength, f'c = 4,000 psi, with a slump of 5" (+/- 1")
   - B. All reinforcing bars shall be ASTM A615, Grade 60, unless noted otherwise.
   - C. No splices of reinforcement shall be made and no welding to reinforcing shall be permitted except as detailed or authorized by the Structural Engineer. Reinforcing lap splices are to be a minimum of 36 bar diameters, unless noted otherwise.
   - D. Detail bars in accordance with the ACI Detailing Manual and ACI Building Code Requirements for Reinforced Concrete.
   - E. Provide all accessories necessary to support reinforcing at positions shown.
   - F. Concrete placement shall not have joints in a horizontal plane. All construction joints shall be as detailed or as approved by the Structural Engineer.
   - G. No chloride admixtures shall be added to concrete without the approval of the Structural Engineer.
   - H. Allow for additional concrete thickness to compensate for structural member and formwork deflections.
5. Contractor Submittals:
   - A. General Contractor shall provide Concrete Design Mixture Submittal to the Architect and Structural Engineer for review and approval prior to proceeding with concrete placement operations.
6. All dimensions shall be verified and coordinated with the Architectural drawings and equipment supplier's installation manual.
7. Structural Engineer's approval must be secured for all substitutions.
8. 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.
9. Special inspections shall be provided as specified in the drawings and in accordance with Chapter 17 of the International Building Code.
10. General Contractor shall inform and update the Structural Engineer as to the status and schedule of Construction, and shall coordinate with the Structural Engineer to schedule periodic site visits to perform visual Structural Observations of completed and ongoing portions of the Work.
11. Significant permanent equipment sizes, weights, and locations indicated on the drawings are as provided to the Structural Engineer during design. Changes in sizes, weights, or locations from that indicated must be submitted in writing for review and approval by the Structural Engineer. Required supports or braces not shown on the drawings are the responsibility of the equipment supplier.
12. Epoxied reinforcing dowel installation shall be performed by personnel trained to install adhesive anchors in accordance with the Manufacturer's Printed Installation Instructions (MPII). Dowels shall be installed in holes drilled with a rotary impact drill or rock drill. Concrete at the time of dowel installation shall have a minimum compressive strength of 2,500 psi.
13. Explanation of section designation used:

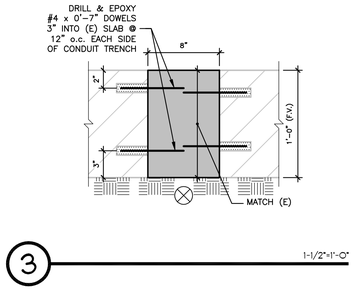


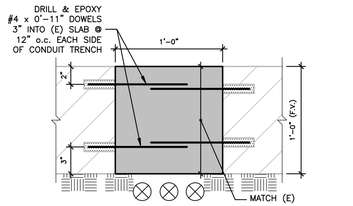
STRUCTURAL SPECIAL INSPECTIONS

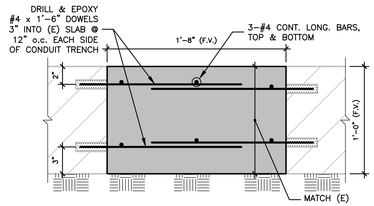
1. General:
   - A. Special Inspections and Tests shall be provided in accordance with Chapter 17 of the International Building Code.
   - B. The Owner or the Owner's Authorized Agent, other than the Contractor, shall employ one or more Approved Agencies to perform Special Inspections and Tests during construction on the types of work outlined herein.
   - C. Approved Agencies shall provide all information as necessary for the Building Official to determine that the Agency meets or exceeds the applicable code-specified requirements.
   - D. Prior to the start of construction, the Approved Agencies shall provide written documentation to the Building Official demonstrating the competence and relevant experience or training of the Special Inspectors who will perform the Special Inspections and Tests during construction.
   - E. The construction or work for which Special Inspection or Testing is required shall remain accessible and exposed for Special Inspection or Testing purposes until completion of the required Special Inspections or Tests.
   - F. Approved Agencies shall keep records of Special Inspections and Tests and shall submit reports of Special Inspections and Tests conforming to Chapter 17 of the International Building Code to the Building Official and Structural Engineer. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If not corrected, the discrepancies shall be brought to the attention of the Building Official and Structural Engineer prior to completion of the applicable phase of the work.
   - G. Special Inspections shall be provided on a Periodic or Continuous basis, as stated or indicated by [P] or [C] below.
2. Special Inspection of Concrete Construction:
   - A. Special Inspection of Concrete construction shall be provided as follows:
     1. Inspection of reinforcing steel and placement [P]
     2. Inspection of anchors cast in concrete [P]
     3. Inspection of anchors post-installed in hardened concrete [P]
     4. Verify use of approved design mix [P]
     5. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete [C]
     6. Inspection of concrete placement for proper application techniques [C]
   - B. Testing of composite samples of fresh concrete shall be performed as follows:
     1. Samples for preparing strength test specimens of each concrete mixture placed each day shall be at a minimum taken as follows: (a) at least once a day (b) at least once or each 100 cu. yd. of concrete (c) at least once for each 5,000 s.f. of surface area for slabs or walls. Sampling of concrete shall be in accordance with ASTM C172.
     2. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
     3. Slump: ASTM C143; One test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
     4. Compression Test Specimens: ASTM C31; Cast and cure two sets of two 6"x12" cylinder specimens or three 4"x8" cylinder specimens for each composite sample. Additional specimens may be taken, at the Contractor's option and request, to be used to verify minimum concrete strengths required for the installation of epoxied dowel bars and post-installed expansion anchors, as indicated in the drawings.
     5. Compressive Strength Tests: ASTM C39; Test one set of two cured specimens at 7 days and one set of two specimens at 28 days. Additional tests may be provided for additional specimens, as outlined above.

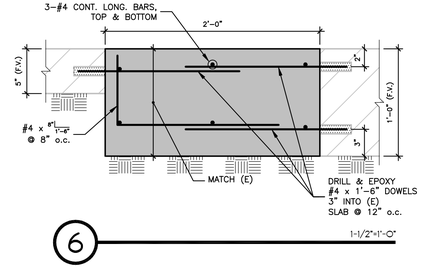


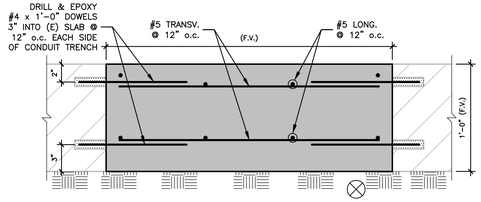




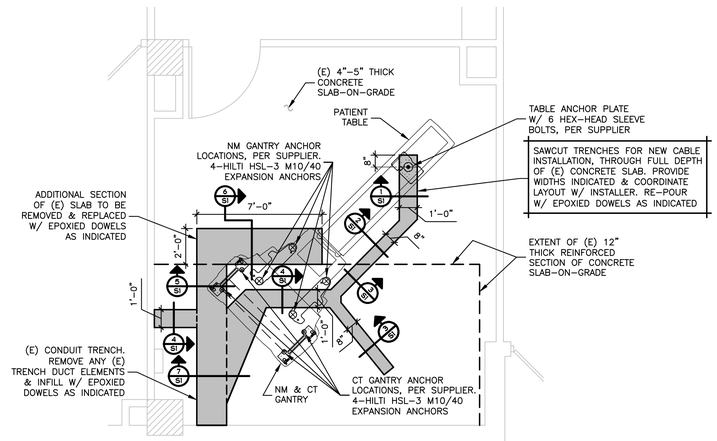








City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Aug 28, 2018
2015 INTERNATIONAL CODES & 2017 NEC



EQUIPMENT SUPPORT & CONDUIT TRENCH SLAB PLAN 1/4"=1'-0"

NOTES:

1. BOXED NOTES INDICATE TYPICAL NOTES, UNLESS NOTED OTHERWISE.
2. (E) INDICATES EXISTING ITEM OR DIMENSION TO BE FIELD VERIFIED BY CONTRACTOR PRIOR TO BEGINNING WORK.
3. FLOOR SLABS SHALL BE CONSTRUCTED OVER PROPERLY CONDITIONED AND COMPACTED SUBGRADE MATERIALS.
4. SUPPORT ANCHORS FOR GANTRY AND PATIENT TABLE EQUIPMENT TO BE LOCATED IN AREAS OF NEW CONCRETE SLAB POURS SHALL BE INSTALLED AFTER NEW CONCRETE HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,625 psi, AS VERIFIED BY PUBLISHED CONCRETE CYLINDER SAMPLE TEST DATA.
5. EQUIPMENT AND SUPPORT ANCHOR INSTALLATION AND LOCATIONS SHALL BE AS INDICATED IN THE EQUIPMENT SUPPLIER'S INSTALLATION MANUAL.
6. NEWLY PLACED AND EXISTING CONCRETE SLAB LEVELNESS AND FLATNESS SHALL BE VERIFIED TO MEET THE MINIMUM REQUIREMENTS SPECIFIED IN THE EQUIPMENT SUPPLIER'S INSTALLATION MANUAL.

nextlevel STRUCTURAL ENGINEERS
nlengineers.com
COLORADO LICENSED
MATTHEW W. NICHOLS
36279
07-24-18
PROFESSIONAL ENGINEER

Structural Engineer
Next Level, Inc.
7186 S. Forest Lane
Centennial, CO 80122
303.260.9456

Client
The Medical Center of Aurora
1501 S. Potomac Street
Aurora, CO 80012
Thomas Hecker
303.338.7869

Architect
Tom Thompson Architect
2510 S. Osceola Street
Denver, CO 80219
Tom Thompson
720.989.6084

THE MEDICAL CENTER OF AURORA
NUCLEAR MEDICINE EQUIPMENT UPGRADE

1501 S. Potomac Street - Aurora, CO 80012

Principal
Matt Nichols, P.E.
303.260.9456
matt@nlengineers.com

NLI Job Number 18-051

May 29, 2018

Issue	Date
100% CD	07.24.18

STRUCTURAL NOTES, SLAB PLAN & DETAILS

S1

RSN: 1312470
Permit #: 2018-1509154-LT

GENERAL NOTES

SUPPLEMENTAL GENERAL CONDITIONS

1. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND IT IS THE INTENT AND MEANING OF THE CONTRACT DOCUMENTS THAT THE CONTRACTOR SHALL PROVIDE AN ELECTRICAL INSTALLATION THAT IS COMPLETE WITH ALL ITEMS AND APPURTENANCES NECESSARY, REASONABLE INCIDENTAL TO AND/OR CUSTOMARILY INCLUDED, EVEN THOUGH EACH AND EVERY ITEM IS NOT SPECIFICALLY CALLED OUT OR SHOWN. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, LABOR, SUPERVISION AND SERVICE NECESSARY SO AS TO PROVIDE A COMPLETE, FUNCTIONING ELECTRICAL SYSTEM IN SAFE WORKING ORDER.
2. SYMBOLS FOR VARIOUS ELEMENTS AND SYSTEMS ARE SHOWN ON THE DRAWINGS. SHOULD THERE BE ANY DOUBT REGARDING THE MEANING OR INTENT OF THE SYMBOLS USED, AND INTERPRETATION SHALL BE OBTAINED FROM THE ARCHITECT IN WRITING. THE DECISION OF THE ARCHITECT SHALL BE FINAL.
3. IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO EXAMINE THE CONTRACT DOCUMENTS CAREFULLY BEFORE SUBMITTING THEIR BID, WITH PARTICULAR ATTENTION TO ERRORS, OMISSIONS, CONFLICTS WITH PROVISIONS OF LAWS AND CODES HAVING JURISDICTION, CONFLICTS BETWEEN DRAWINGS OR DRAWINGS AND SPECIFICATIONS, AND AMBIGUOUS DEFINITION OF THE EXTENT OF COVERAGE BETWEEN CONTRACTS. ANY SUCH DISCREPANCY SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ARCHITECT FOR CORRECTION. SHOULD ANY OF THESE ERRORS, OMISSIONS, CONFLICTS, OR AMBIGUITIES EXIST, THE CONTRACTOR SHALL HAVE THEM EXPLAINED AND ADJUSTED IN WRITING BEFORE SIGNING THE CONTRACT OR PROCEEDING WITH THE WORK; OTHERWISE, THE CONTRACTOR SHALL, AT THEIR OWN EXPENSE, SUPPLY THE PROPER MATERIALS AND LABOR TO MAKE GOOD ANY DAMAGE OR DEFECTS IN THEIR WORK OR THE RESULTS OBTAINED THEREFROM, CAUSED BY SUCH DISCREPANCY.
4. WHEREVER CONFLICTS OCCUR BETWEEN DIFFERENT PARTS OF THE CONTRACT DOCUMENTS, THE GREATER QUANTITY, THE BETTER QUALITY, OR LARGER SIZE SHALL PREVAIL UNLESS THE ARCHITECT INFORMS THE CONTRACTOR OTHERWISE IN WRITING.
5. THE SCALE OF EACH DRAWING IS RELATIVELY ACCURATE; ANY DIMENSIONS SHOWN ARE APPROXIMATE TO THE CENTERLINE FROM ASSUMED BUILDING PERIMETER. THE CONTRACTOR SHALL OBTAIN THE NECESSARY DIMENSIONS FOR ANY EXACT TAKEOFFS FROM THE ARCHITECT. NO ADDITIONAL COST TO THE OWNER WILL BE CONSIDERED FOR FAILURE TO OBTAIN EXACT DIMENSIONS WHERE NOT CLEAR OR IN ERROR ON THE DRAWINGS. ANY DEVICE OR FIXTURE ROUGHED IN IMPROPERLY AND NOT POSITIONED ON IMPLIED CENTER-LINES OR AS REQUIRED BY GOOD PRACTICE MUST BE REPOSITIONED AT NO COST TO THE OWNER.
6. THE CONTRACTOR IS RESPONSIBLE FOR FILING AND PAYING ALL FEES AND OBTAINING NECESSARY PERMITS AND CERTIFICATES OF INSPECTION. THE CONTRACTOR SHALL DELIVER ALL CERTIFICATES OF INSPECTION TO OWNER/CONSTRUCTION MANAGER INCLUDING COPIES WITH MAINTENANCE MANUALS.
7. ONLY EXPERIENCE CRAFTSMEN KNOWLEDGEABLE IN THEIR RESPECTIVE TRADE SHALL PERFORM THE WORK DESCRIBED IN THE CONSTRUCTION DOCUMENTS.
8. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADDITION OF NFPA STANDARD 70 (NATIONAL ELECTRICAL CODE). CONTRACTOR SHALL ALSO CONFORM TO ALL APPLICABLE LOCAL CODES AND AMENDMENTS.
9. UNLESS OTHERWISE INDICATED, ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND SHALL MEET NEMA AND ANSI STANDARDS. THEY SHALL ALSO BE LISTED/LABELED BY A NATIONALLY RECOGNIZED LABORATORY IN ACCORDANCE WITH NFPA 70. ALL EQUIPMENT AND MATERIALS PROVIDED SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, AND WITHIN THEIR LISTING/LABELING REQUIREMENTS AND RESTRICTIONS.
10. PROVIDE SHOP DRAWINGS FOR ENGINEER'S REVIEW FOR ALL ELECTRICAL EQUIPMENT, DEVICES, AND MATERIALS PROPOSED TO BE PROVIDED UNDER THIS CONTRACT. ANY DEVIATIONS FROM ITEMS SPECIFIED SHALL BE CLEARLY IDENTIFIED AND SEPARATELY SUBMITTED WITH A FORMAL SUBSTITUTION REQUEST. REFER TO SPECIFICATIONS (PROJECT MANUAL) FOR REQUIREMENTS.
11. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL PENETRATIONS OF EXISTING STRUCTURAL ELEMENTS WITH ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO PERFORMING ANY WORK. PERFORM ALL WORK AS DIRECTED BY ARCHITECT AND/OR STRUCTURAL ENGINEER. CONTRACTOR SHALL NOT MAKE ANY PENETRATIONS WITHOUT PROPER AUTHORIZATION OF PROJECT ARCHITECT AND/OR STRUCTURAL ENGINEER.

ELECTRICAL EQUIPMENT

1. PROVIDE AND IDENTIFICAITON NAMEPLATE FOR EACH ELECTRICAL EQUIPMENT OR APPURTENANCE DEPICTING THE DESIGNATION INDICATED ON THE DRAWINGS. REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS.
2. WEATHERPROOF ENCLOSURES SHALL BE PROVIDED FOR ALL ELECTRICAL EQUIPMENT, DEVICES AND APPURTENANCES (ALL SYSTEMS) INSTALLED OUTDOORS EXPOSED TO WEATHER.
3. COORDINATE AND SCHEDULE ALL POWER OUTAGES WITH BUILDING OWNER OR AUTHORIZED REPRESENTATIVE. REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS.
4. SPACE ALLOCATIONS FOR MATERIALS, EQUIPMENT AND DEVICES HAVE BEEN MADE ON THE BASIS OF PRESENT AND KNOWN FUTURE REQUIREMENTS AND THE DIMENSIONS OF ITEMS OF EQUIPMENT OR DEVICES OF A PARTICULAR MANUFACTURER. THE CONTRACTOR SHALL VERIFY THAT ALL MATERIALS, EQUIPMENT AND DEVICES PROPOSED FOR USE ON THIS PROJECT ARE WITHIN THE CONTSTRAINTS OF THE ALLOCATED SPACE.
5. DO NOT USE PERMANENT INK WHEN MAKING FIELD MARKINGS OR TEMPORARY CIRCUIT LABELS ON PANELS. CONTRACTOR SHALL USE REMOVABLE TAPE/TAGS FOR ALL TEMPORARY MARKINGS AND SHALL REMOVE THESE TEMPORARY MARKINGS AT THE CONCLUSTION OF THIS PROJECT.

CONDUIT & RACEWAY

1. ALL WORK SHALL BE COORDINATED SO THAT INTERFERENCES ARE AVOIDED. PROVIDE ALL NECESSARY OFFSETS IN CONDUITS, RACEWAYS, ETC., REQUIRED TO PROPERLY INSTALL THE WORK. EXPOSED WORK MUST BE KEPT AS CLOSE AS POSSIBLE TO WALLS, CEILINGS, COLUMNS, ETC., SO AS TO TAKE UP A MINIMUM AMOUNT OF SPACE; ALL OFFSETS, FITTINGS, ETC., REQUIRED SHALL BE PROVIDED WITHOUT ADDITIONAL EXPENSE TO THE OWNER. WORK SHALL BE COORDINATED WITH OTHER TRADES.
2. CONDUIT RUNS ARE DIAGRAMMATIC IN NATURE. CONTRACTOR IS RESPONSIBLE FOR SIZING AND LOCATING PULL BOXES PER NFPA 70 AND FOR COORDINATION WITH OTHER DISCIPLINES.
3. PENETRATIONS OF WALLS, FLOORS, AND ROOFS FOR THE PASSAGE OF ELECTRICAL RACEWAYS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO THE COMMENCEMENT OF WORK. ALL SUCH PENETRATIONS SHALL BE PROPERLY SEALED OFF AFTER INSTALLATION OF RACEWAY SO AS TO MAINTAIN THE STRUCTURAL, WATER PROOF, AND FIRE PROOF INTEGRITY OF THE WALL, FLOOR, OR ROOF SYSTEM PENETRATED.
4. SEAL ALL CONDUITS THAT PENETRATE THE FLOOR SLAB TO MAKE THEM WATER TIGHT. THE CONDUITS SHALL BE DRIED PRIOR TO INSTALLATION OF WIRE/CABLE AND SHALL BE SEALED AT TERMINATIONS.
5. ALL PENETRATIONS THROUGH FIRE RATED WALLS OR PARTITIONS SHALL BE MADE IN ACCORDANCE WITH U.L. "FIRE RESISTANCE DIRECTORY". PENETRATIONS SHALL BE SLEEVED AND SEALED WITH A U.L. APPROVED FIRE RATED SEALANT. REFER TO ARCHITECTURAL PLANS FOR FIRE RATED WALLS.
6. ALL EMPTY CONDUIT SYSTEMS SHALL CONTAIN A PULL WIRE FOR FUTURE PULLING OF CONDUCTORS.

BRANCH CIRCUITS AND FEEDERS

1. CIRCUITING IS SHOWN DIAGRAMMATICALLY. HOMERUNS SHALL BE COMBINED WHERE POSSIBLE IN ACCORDANCE TO NFPA 70.
2. UNLESS OTHERWISE INDICATED, ALL CIRCUITS 100' OR LESS SHALL BE MINIMUM 12 AWG WIRE SIZE. CIRCUITS OVER 100' BUT LESS THAN 200' SHALL BE MINIMUM 10 AWG WIRE SIZE. CIRCUITS OVER 200' BUT LESS THAN 300' SHALL BE MINIMUM 8 AWG WIRE SIZE.
3. UNLESS OTHERWISE INDICATED, ALL CONDUCTORS SHALL BE COPPER, 98% CONDUCTIVITY CONTINUOUS FROM OUTLET TO OUTLET.
4. UNLESS OTHERWISE INDICATED, CONDUCTOR SIZES 12 AWG AND 10 AWG SHALL BE SOLID. CONDUCTOR SIZES 8 AWG AND LARGER MAY BE STRANDED.
5. A SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE PULLED WITH THE CIRCUIT CONDUCTORS FOR GROUNDING WHETHER OR NOT INDICATED ON THE DRAWINGS. METAL RACEWAY, OR A CABLE ARMOR OR SHEATH SHALL NOT BE USED AS THE ONLY EQUIPMENT GROUNDING CONDUCTOR.

WIRING DEVICES

1. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LOCATION AND MOUNTING HEIGHT OF ALL WALL AND FLOOR MOUNTED ELEMENTS (OUTLETS, LIGHT SWITCHES, CONTROLLERS, POKE-THRU, ETC). ALL WALL/FLOOR MOUNTED ITEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL DIMENSIONED DRAWINGS. IF LOCATION FOR AN ITEM IS NOT SHOWN ON THE ARCHITECTURAL DRAWINGS, VERIFY THE EXACT LOCATION OF THE ITEM WITH THE ARCHITECT PRIOR TO INSTALLATION. THESE REQUIREMENTS APPLY TO ALL WALL/FLOOR TYPES IN ALL AREAS. DO NOT SCALE OR DIMENSION LOCATIONS FROM THESE DRAWINGS.
2. COORDINATE THE LOCATION AND INSTALLATION DETAIL OF OUTLETS IN MILLWORK WITH ARCHITECTURAL DRAWINGS (WALL ELEVATIONS, MILLWORK DETAILS, ETC.) AND WITH MILLWORK MANUFACTURER PRIOR TO ELECTRICAL ROUGH-IN.
3. WALL AND FLOOR MOUNTED POWER RECEPTACLES SHOWN NEAR DATA OUTLETS SHALL BE LOCATED WITHIN SIX (6) INCHES OF THE DATA OUTLET. LOCATE AT SAME MOUNTING HEIGHT UNLESS NOTED OTHERWISE.
4. VERIFY THE EXACT POWER CONNECTION TYPE AND NEMA CONFIGURATION OF RECEPTACLES FOR EQUIPMENT FURNISHED BY THE OWNER, OTHER TRADES, OR UNDER A SEPARATE SECTION OF THIS CONTRACT PRIOR TO ELECTRICAL ROUGH-IN.
5. ALL GFCI RECEPTACLES SHALL BE CONNECTED SO THAT ALL DEVICES ON THE SAME CIRCUIT AS THE GFCI RECEPTACLE DO NOT DE-ENERGIZE UPON TRIPPING. ALL GFCI RECEPTACLES SHALL INCLUDE A LOCK-OUT FUNCTION TO PROTECT AGAINST THE USE OF MISWIRED DEVICES OR DEVICES THAT HAVE BEEN DAMAGED DUE TO DISABLING SURGES.
6. ATTACHMENT SCREWS FOR ALL DEVICES AND COVERPLATES FOR ALL SWITCHES, RECEPTACLES AND OTHER DEVICES IN ALL PATIENT-ACCESSIBLE AREAS SHALL BE TAMPER-PROOF TYPE ONLY. STANDARD TYPE ATTACHMENT SCREWS AND COVERPLATES MAY ONLY BE USED IN SECURE STAFF-ONLY AREAS.

LIGHTING SYSTEM

1. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LOCATION OF ALL CEILING ELEMENTS (LIGHTS, SPRINKLERS, DIFFUSERS, ETC). ALL CEILING MOUNTED ITEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL DIMENSIONED DRAWINGS. IF LOCATION FOR AN ITEM IS NOT SHOWN ON THE ARCHITECTURAL DRAWINGS, VERIFY THE EXACT LOCATION OF THE ITEM WITH THE ARCHITECT PRIOR TO INSTALLATION. THESE REQUIREMENTS APPLY TO ALL CEILING TYPES IN ALL AREAS. DO NOT SCALE OR DIMENSION LOCATIONS FROM THESE DRAWINGS.
2. PROVIDE AND INSTALL ALL SUPPORTS FOR LIGHT FIXTURES. SUPPORTS SHALL BE INDEPENDENT OF THE CEILING GRID SUPPORT SYSTEM.
3. LIGHT SWITCHES / OCCUPANCY SENSORS LOCATED IN A ROOM SHALL CONTROL ALL THE FIXTURES IN THAT ROOM UNLESS NOTED OTHERWISE. CONTRACTOR SHALL GANG TOGETHER ALL SWITCHES/DIMMERS UNDER A SINGLE COVERPLATE IN ALL AREAS THAT REQUIRE MORE THAN ONE SWITCH TO CONTROL ELECTRICAL DEVICES.

MECHANICAL & PLUMBING COORDINATION

1. REFERENCE THE MECHANICAL AND PLUMBING DRAWINGS FOR ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS. MAKE ALL CONNECTIONS AND PROVIDE APPROPRIATE WIRE, CONDUIT, AND OVERCURRENT PROTECTION PER EQUIPMENT MANUFACTURER NAMEPLATE FOR ALL EQUIPMENT.
2. VERIFY EXACT LOCATION OF ALL POWER CONNECTIONS AND CONTROL DEVICES WITH OTHER TRADES AND MANUFACTURERS SHOP DRAWINGS BEFORE CONSTRUCTION. COORDINATE ALL REQUIRED ENERGY MANAGEMENT SYSTEM POINTS AND CONTACT CONNECTIONS TO ENSURE THE COMPLETE AND PROPER OPERATION OF ALL SYSTEMS.
3. ALL FUSED SWITCH AND/OR CIRCUIT BREAKERS SERVING EQUIPMENT SHALL HAVE PROVISIONS FOR HANDLE LOCKS. PROVIDE FUSES PER EQUIPMENT MANUFACTURER NAMEPLATE DATA.
4. ALL CIRCUIT BREAKERS SERVING MECHANICAL EQUIPMENT SHALL BEAR A 'HACR' RATING.
5. COORDINATE BETWEEN TRADES AND PROVIDE CONTROL POWER FOR ALL VAV BOXES/DAMPERS/ETC, AS REQUIRED TO ENSURE A COMPLETE, FULLY FUNCTIONAL HVAC SYSTEM. SHOULD AN EXACT CIRCUIT NUMBER NOT BE INDICATED ON ELECTRICAL DRAWINGS, CONTRACTOR SHALL UTILIZE AVAILABLE 20A/1P SPACE FROM THE NEAREST 208V/120V THAT COMPLIES WITH NFPA 70 OR FROM BUILDING CONTROL POWER DISTRIBUTION SYSTEM.

SPECIAL SYSTEMS (I.E. DATA/PHONE/SECURITY/CAT V)

1. CONTRACTOR SHALL PROVIDE AND INSTALL AN EMPTY CONDUIT RACEWAY AND BACKBOX SYSTEM FOR OWNERS SPECIAL SYSTEMS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN FROM OWNERS SELECTED SYSTEMS VENDORS SHOP DRAWINGS FROM EACH VENDOR/INSTALLER PRIOR TO ELECTRICAL ROUGH-IN. CONTRACTOR SHALL COORDINATE BACKBOX AND RACEWAY SIZING REQUIREMENTS, LOCATIONS, ELEVATIONS, ETC., AND PROVIDE AND INSTALL ALL REQUIRED RACEWAYS AND DEVICE BACK BOXES AS REQUIRED BY VENDOR SHOP DRAWINGS. CONTRACTOR SHALL PROVIDE A EPARATE LINE ITEM ALLOWANCE IN BID AS NECESSARY TO COVER THIS SCOPE.

DEMOLITION GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE TO VISIT THE JOBSITE AND DETERMINE ALL EXISTING CONDITIONS PRIOR TO BID. CONTRACTOR SHALL BE RESPONSIBLE TO THOROUGHLY REVIEW THE PROJECT DOCUMENTS AND DETERMINE THEREFROM THE REQUIRED SCOPE OF THE DEMOLITION WORK REQUIRED. INCLUDE SUFFICIENT ALLOWANCE AND/OR SEPARATE LINE ITEM PRICING FOR ALL DEMOLITION WORK REQUIRED. COORDINATE ALL SCOPE OF WORK WITH GENERAL CONTRACTOR PRIOR TO BID AND PERFORM ALL WORK AS DIRECTED. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
2. THE NATURE OF THIS REMODEL PROJECT MAY REQUIRE EXTENSIVE SERVICE MODIFICATIONS THAT MAY REQUIRE SERVICE SHUTDOWN AND VARIOUS PORTIONS OF THE BUILDING/COMPLEX TO BE WITHOUT POWER AT VARYING TIMES DUE TO THE EXTENT OF THE RECONFIGURATION OF THE EXISTING ELECTRICAL DISTRIBUTION SYSTEM. CONTRACTOR SHALL ADVISE BUILDING OWNER OR OWNERS AUTHORIZED REPRESENTATIVE PRIOR TO ANY POWER OUTAGES. REFER TO ED SERIES SHEETS & 6-SERIES SHEETS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
3. COORDINATE ALL DEMOLITION WORK WITH GENERAL CONTRACTOR AND PROVIDE ALL SUPPORT AS DIRECTED TO SAFETY-OFF ALL ELECTRICAL SYSTEMS AND EQUIPMENT TO BE DEMOLISHED. INCLUDE ALL LABOR AND MATERIALS REQUIRED FOR ALL ELECTRICAL DEMOLITION SCOPE OF WORK AS DIRECTED BY THE GENERAL CONTRACTOR.
4. COORDINATE WITH GENERAL CONTRACTOR FOR PROPER HAZARDOUS MATERIALS DISPOSAL FOR ALL FLUORESCENT LAMPS AND BALLASTS REMOVED. INCLUDE PROPER DISPOSAL FEES FOR ALL HAZARDOUS MATERIALS AND PROVIDE WRITTEN DOCUMENTATIONS OF PROPER DISPOSAL TO OWNERS AUTHORIZED REPRESENTATIVE FOR ALL HAZARDOUS MATERIALS REMOVED FROM THE BUILDING.
5. DESIGNATION 'EX' REPRESENTS EXISTING DEVICE OR LIGHT FIXTURE TO REMAIN AS CIRCUITED AND SWITCHED UNLESS NOTED OTHERWISE. EXISTING LIGHT FIXTURES SHALL BE CLEANED AND REPAIRED AS REQUIRED.
6. WHERE EXISTING WALLS ARE DEMOLISHED, REMOVE ALL EXISTING ELECTRICAL DEVICES AND THEIR ASSOCIATED CONDUITS AND WIRING BACK TO THE POINT OF ORIGINATION. ENERGIZE ALL EXISTING DEVICES THAT WERE INTERRUPTED DURING DEMOLITION. WHERE ENTIRE CIRCUITS ARE REMOVED, TURN THE CIRCUIT BREAKER OFF AND LABEL AS "SPARE". PROVIDE UPDATED, TYPE-WRITTEN PANEL DIRECTORY OF ALL CORRECT CIRCUITS WITH LOAD DEFINITIONS FOR EACH PANEL BOARD. DIRECTORY SHALL BE LOCATED INSIDE PANEL DOOR.
7. 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.
8. WHERE EXISTING MECHANICAL/PLUMBING EQUIPMENT IS DEMOLISHED, REMOVE ALL RELATED ELECTRICAL FEEDS TO THE EQUIPMENT AND THEIR ASSCOIATED CONDUITS BACK TO THE POINT OF ORIGINATION.
9. SPACE ALLOCATIONS FOR MATERIALS, EQUIPMENT AND DEVICES HAVE BEEN MADE ON THE BASIS OF PRESENT AND KNOWN FUTURE REQUIREMENTS AND THE DIMENSIONS OF ITEMS OF EQUIPMENT OR DEVICES OF A PARTICULAR MANUFACTURER, WHETHER INDICATED OR NOT. THE CONTRACTOR SHALL VERIFY THAT ALL MATERIALS, EQUIPMENT AND DEVICES PROPOSED FOR USE ON THIS PROJECT ARE WITHIN THE CONSTRAINTS OF THE ALLOCATED SPACE.
10. ALL RECEPTACLES WITHIN THE PROJECT SCOPE SHALL BE HOSPITAL GRADE TYPE. IF A DEVICE IS INDICATED AS EXISTING TO REMAIN AND IS NOT A HOSPITAL GRADE RECEPTACLE, REPLACE THE EXISTING DEVICE WITH A HOSPITAL GRADE RECEPTACLE AND RECONNECT TO EXISTING CIRCUIT.
11. ALL LIGHT FIXTURES DEMOLISHED UNDER THESE DRAWINGS SHALL BE RETURNED TO THE OWNER.

ELECTRICAL ABBREVIATIONS

AAP	AREA ALARM PANEL	MH	MANHOLE
AFC	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)
EP	EXPLOSION PROOF	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	FIRE ALARM	SP	SPARE
FACP, FAP	FIRE ALARM CONTROL PANEL	ST (S.T.)	SHUNT TRIP
FCU	FAN COIL UNIT	SW	SWITCH
FIXT	FIXTURE	TEL	TELEPHONE
FLR	FLOOR	TF	TRANSFER FAN
FLUOR	FLUORESCENT	TP	TAMPER PROOF
FTP, FTS	FAN TERMINAL UNIT	TV	TELEVISION
FTU	FAN TERMINAL UNIT	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
FUT	FUTURE	UF	UNDERFLOOR
G, GND	GROUND (EQUIPMENT)	UG	UNDERGROUND
GEF	GENERAL EXHAUST FAN	UH	UNIT HEATER
GEN	GENERATOR	UNO (U.N.O.)	UNLESS NOTED OR INDICATED OTHERWISE
GFCI, GFI	GROUND FAULT CIRCUIT INTERRUPTER	V	VOLTAGE
HP	HORSE POWER	VFD	VARIABLE FREQUENCY DRIVE
HV	HIGH VOLTAGE	VP	VAPOR PROOF
HWAT	HEAT TRACE	VV	VARIABLE VOLUME UNIT
IC	INTERRUPTING CAPACITY	W	WIRE
ICAND	INCANDESCENT	W/	WITH
IG	ISOLATED GROUND	WG	WIRE GUARD
JB	JUNCTION BOX	WP	WEATHER PROOF
KEF	KITCHEN EXHAUST FAN	WT	WATER TIGHT
LTG	LIGHTING	XFMR	TRANSFORMER
LTS	LIGHTS	+xx	MOUNTING HEIGHT IN INCHES. AFF UNO.
LV	LOW VOLTAGE		
MATV	MASTER ANTENNA		
MCB	MAIN CIRCUIT BREAKER		
MCC	MOTOR CONTROL CENTER		
MDP	MAIN DISTRIBUTION PANEL		

KEY TO GENERAL NOTATIONS AND MOUNTING HEIGHTS

48" AFF INDICATES TO TOP OF DEVICE;
18" AFF INDICATES TO CENTER OF DEVICE;
60" AFF INDICATES TO BOTTOM OF DEVICE;
80" AFF INDICATES TO BOTTOM OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

⬡ LEGEND NOTES: DENOTES "SEE LEGEND NOTE NO. 2"

REF: 02/E-202 DENOTES: REFERENCE 2 IN DRAWING (SHEET) E-202

20A — FEEDER TAG. FEEDER SIZES ARE DETERMINED BY THE FEEDER SCHEDULE

PROJECT DESIGN CRITERIA

LOCATION	
CITY/STATE	AUROA, CO
APPLICABLE CODES	
BUILDING	2015 IBC
MECHANICAL	2015 IMC
PLUMBING	2015 IPC
ENERGY	2015 IECC
ELECTRICAL	2017 NEC
FIRE	2017 IFC
LATITUDE	
DEG. N. LAT.	39°41' N
ELEVATION	
FT. ABOVE SEA LEVEL	5470

THIS SHEET OF DRAWINGS HAS NOT BEEN REVIEWED FOR CODE COMPLIANCE.

RECEPTACLE SYMBOLS LEGEND

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

SYMBOL	DESCRIPTION	MNTG. HT. UNO
⊖	SINGLE RECEPTACLE - 20A/125V/2P/3WG NEMA 5-20R	18" AFF
⊜	DUPLEX RECEPTACLE - 20A/125V/2P/3WG NEMA 5-20R	18" AFF
⊜	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTERTOP	8" AFC OR 42" AFF
⊜	QUADRAPLEX RECEPTACLE (TWO DUPLEX RECEPTACLES UNDER ONE COVERPLATE)	18" AFF
⊜	QUADRAPLEX RECEPTACLE MOUNTED ABOVE COUNTERTOP (TWO DUPLEX RECEPTACLES UNDER ONE COVERPLATE)	8" AFC OR 42" AFF
⊖	SPECIAL PURPOSE RECEPTACLE (NEMA NO. AS INDICATED)	18" AFF
⊙	FLOOR MOUNTED RECEPTACLE IN FLOOR BOX OR POKE-THRU DEVICE - FLUSH MOUNTED, UNO	18" AFF
⌖	CEILING MOUNTED RECEPTACLE - CONFIGURATION UNO	FLUSH W/ CLG SURFACE
(J) KO	JUNCTION BOX - SIZE & MOUNTING AS REQUIRED	AS REQUIRED
KO DT	WALL MOUNTED JUNCTION BOX FOR DATA/TELEPHONE - SIZE & MOUNTING AS REQUIRED	AS REQUIRED

RECEPTACLE TAG LEGEND

E - DEVICE ON EMERGENCY CIRCUIT
GFI - GROUND FAULT INTERRUPTING DEVICE
H - DEVICE MOUNTED HORIZONTALLY
TP - TAMPER PROOF DEVICE WITH TAMPER RESISTANT MOUNTING SCREWS
WP - GROUND FAULT INTERRUPTING, TAMPER RESISTANT, WEATHER RESISTANT DEVICE LOCATED IN A "WEATHER PROOF IN USE" ENCLOSURE.

POWER SYMBOLS LEGEND

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

SYMBOL	DESCRIPTION	MNTG. HT. UNO
X/Y/Z X/-Z CB X/Z	DISCONNECT SWITCH FUSED - X/Y/Z (X=FRAME SIZE, Y=FUSE SIZE, Z=NUMBER OF POLES) NON-FUSED - X/-/Z(X=FRAME SIZE, Z=NUMBER OF POLES) CIRCUIT BREAKER - CB X/Y/Z (X=FRAME SIZE, Z=NUMBER OF POLES)	AS REQUIRED
$M	MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD AND PILOT LIGHT	AS REQUIRED
	EMERGENCY POWER OFF BUTTON - WALL MOUNTED	AS REQUIRED
	CIRCUIT HOMERUN TO PANELBOARD (2#12, 1#12G, 3/4"C. 20A/1P CB UNO)	--
X,X,X	THREE SINGLE POLE DEVICE CIRCUIT NUMBERS	--
X/X/X	MULTI-POLE DEVICE CIRCUIT NUMBERS	--
	208Y/120V PANELBOARD	--
	480Y/277V PANELBOARD	--
	208Y/120V DISTRIBUTION PANELBOARD	--
	480Y/277V DISTRIBUTION PANELBOARD	--
	ISOLATION PANEL	--
	SWITCHBOARD	--
T	STEP-DOWN TRANSFORMER	--
	AUTOMATIC TRANSFER SWITCH	--
	BY-PASS / ISOLATION AUTOMATIC TRANSFER SWITCH	--
	GROUND BAR	--
GAP	GENERATOR ANNUNCIATOR PANEL	AS REQUIRED
ATSA	AUTOMATIC TRANSFER SWITCH ANNUNCIATOR PANEL	AS REQUIRED
SPD	TRANSIENT VOLTAGE AND SURGE SUPPRESSOR DEVICE	AS REQUIRED
AAP	AREA ALARM PANEL	AS REQUIRED
FOAP	FUEL OIL ALARM PANEL	AS REQUIRED
MGAP	MEDICAL GAS ALARM PANEL - PANEL PROVIDED UNDER DIV 22	AS REQUIRED
DHTA	DECONTAMINATION HOLDING TANK ALARM - PANEL PROVIDED UNDER OTHER DIVISION	AS REQUIRED

NURSE CALL SYMBOLS LEGEND

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

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
CB	SINGLE PUSH BUTTON STATION - CODE BLUE	48" WALL

NURSE CALL NOTES:
1. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHTS OF ALL DEVICES.
2. STUB UP 3/4" CONDUIT INTO SIDE OF THE PATIENT STATION BACKBOX WITHIN THE SAME ROOM. PATHWAY SHOULD NOT EXCEED 8 FEET TOTAL LENGTH.
3. NURSE CONSOLE RECEPTACLE SHALL BE MOUNTED AT 18" AFF, UNLESS OTHERWISE NOTED, AND THE ACTUAL DEVICE SHALL RESIDE ON THE COUNTERTOP.

LIGHTING SYMBOLS LEGEND

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

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	2'x4' RECESSED LIGHT FIXTURE.	SEE FIXTURE SCHEDULE
	2'x4' RECESSED LIGHT FIXTURE WITH INBOARD AND OUTBOARD ON SEPARATE CONTROL. REFER TO CIRCUITING FOR ADDITIONAL INFORMATION.	SEE FIXTURE SCHEDULE
	2'x2' RECESSED LIGHT FIXTURE.	SEE FIXTURE SCHEDULE
	2'x2' RECESSED LIGHT FIXTURE WITH INBOARD AND OUTBOARD ON SEPARATE CONTROL. REFER TO CIRCUITING FOR ADDITIONAL INFORMATION.	SEE FIXTURE SCHEDULE
	WALL MOUNTED LINEAR FIXTURE.	SEE FIXTURE SCHEDULE
	RECESSED/SURFACE MOUNTED/CHAIN HUNG LINEAR FIXTURE.	SEE FIXTURE SCHEDULE
	RECESSED/SURFACE DOWNLIGHT FIXTURE.	SEE FIXTURE SCHEDULE
	WALL MOUNTED FIXTURE.	SEE FIXTURE SCHEDULE
	RECESSED DOWNLIGHT FIXTURE WITH WALL WASH.	SEE FIXTURE SCHEDULE
	H

RSN: 1312470
Permit #: 2018-1509154-LT

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-T-806b.
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.
4. METAL-CLAD CABLE MAY BE USED. TYPE HCF-MC METAL CLAD CABLE SHALL CONSIST OF FACTORY ASSEMBLED INSULATED CONDUCTORS ENCLOSED IN A METALLIC SHEATH OF INTERLOCKED GALVANIZED STEEL STRIP MANUFACTURED IN ACCORDANCE WITH UL 5169. THE CONDUCTORS SHALL HAVE AN OPERATING TEMPERATURE OF 90 DEGREE C AND SHALL BE COVERED BY A HIGH DIELECTRIC STRENGTH ASSEMBLY TAPE. TYPE HCF-MC CABLE SHALL BE AS MANUFACTURED BY AFC OR EQUAL.

B. COUPLINGS AND TERMINATORS

1. FOR ELECTRICAL METALLIC TUBING: STEEL SET SCREW COUPLINGS; 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. WIREWAY

1. UL LISTED; SIZED INDICATED OR REQUIRED; HINGED COVER, SECURED WITH CAPTIVE SCREWS; COMPLETE WITH ALL REQUIRED FITTINGS, COUPLINGS, HANGERS AND ACCESSORIES.
2. CORROSION RESISTANT PRIMER AND ANSI GRAY EPOXY PAINT FINISH. CORROSION RESISTANT BOLTS OR SCREWS. SCREWS OR BOLTS INSTALLED TOWARD THE INSIDE FITTED WITH SPRING NUTS OR OTHERWISE PREVENTED FROM DAMAGING CONDUCTOR INSULATION.

F. 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.

G. 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.

H. WIRING DEVICES, COVER PLATES AND ACCESSORIES

1. PROVIDE WIRING DEVICES AND ASSOCIATED ACCESSORIES OF SPECIFICATION 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 OR 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 SPECIFICATION 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.

I. OVERCURRENT PROTECTIVE DEVICES

1. MOLDED CASE CIRCUIT BREAKERS
   a. AS MANUFACTURED BY THE MANUFACTURER OF THE PANELBOARD IN WHICH INSTALLED.
   b. ONE, TWO OR THREE POLE WITH RATINGS INDICATED ON THE DRAWINGS; (STANDARD) OR (HIGH INTERRUPTING) CONSTRUCTION AS REQUIRED BY THE SHORT CIRCUIT RATINGS INDICATED ON THE DRAWINGS.
   c. QUICK-MAKE, QUICK-BREAK, CALIBRATED FOR OPERATION IN AN AMBIENT TEMPERATURE OF 40°C. TRIP INDICATION BY HANDLE POSITION, TRIP-FREE. TWO AND THREE POLE BREAKERS: COMMON TRIP WITH SINGLE OPERATING HANDLE WITHOUT HANDLE TIES, PERMANENT TRIP UNIT CONTAINING INDIVIDUAL THERMAL AND MAGNETIC TRIP ELEMENTS IN EACH POLE. FRAME SIZES GREATER THAN 100 AMPERES: VARIABLE MAGNETIC TRIP ELEMENTS WHICH ARE SET BY A SINGLE ADJUSTMENT.
   d. REMOVABLE LUGS, UL LISTED FOR COPPER AND ALUMINUM CONDUCTORS. LISTED FOR INSTALLATION OF MECHANICAL OR COMPRESSION TYPE LUGS.

J. DISCONNECT SWITCHES

1. AS MANUFACTURED BY SQUARE D, GENERAL ELECTRIC, CUTLER-HAMMER OR SIEMENS.
2. ENCLOSED CIRCUIT BREAKER
   a. ENCLOSURES: NEMA 1 OR NEMA 3R AS INDICATED ON THE DRAWINGS. NEMA 1 ENCLOSURES: FURNISHED WITH KNOCKOUTS WHERE PRACTICAL; FABRICATED FROM SHEET STEEL, GALVANIZED AFTER FORMING; ELECTRODEPOSITED, GRAY BAKED ENAMEL FINISH. PROVIDE PADLOCKING PROVISIONS TO ALLOW LOCKING THE CIRCUIT BREAKER IN THE "OFF" POSITION. NEMA 3R ENCLOSURES FOR CIRCUIT BREAKERS RATED THRU THE 225 AMPERE FRAME SIZE FURNISHED WITH PROVISIONS FOR INTERCHANGEABLE, BOLT-ON HUBS. NEMA 3R ENCLOSURE COVERS SECURABLE IN THE OPEN POSITION. PROVIDE PADLOCKING PROVISIONS TO ALLOW LOCKING THE ENCLOSURE COVER CLOSED.

K. 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.

L. LIGHTING FIXTURES

1. 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.
2. LIGHTING FIXTURES SHALL BE UL LABELED.

M. 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. OVERCURRENT PROTECTIVE DEVICE COORDINATION: ALL OVERCURRENT PROTECTIVE DEVICES PROPOSED FOR INCLUSION IN THE WORK SHALL BE SELECTED TO BE SELECTIVELY COORDINATED WITH THE OVERCURRENT PROTECTIVE DEVICES INSTALLED ON THEIR SUPPLY SIDE SUCH THAT AN OVERCURRENT EVENT (OVERLOAD, SHORT-CIRCUIT, OR GROUND-FAULT) OCCURRING AT THE LOWEST LEVEL IN THE SYSTEM (BRANCH CIRCUIT) CANNOT CAUSE THE FEEDER PROTECTIVE DEVICE SUPPLYING THE BRANCH CIRCUIT PANELBOARD TO OPEN. THIS COORDINATION SHALL BE CARRIED THROUGH EACH LEVEL OF DISTRIBUTION FOR ALL BRANCHES OF EMERGENCY POWER TO 0.10 SECONDS.

B. INSTALLATION OF BUILDING CONDUIT

1. ALL INTERIOR RACEWAYS SHALL BE EMT. RACEWAYS IN DAMP OR WET LOCATIONS, OR IN HAZARDOUS LOCATIONS, SHALL BE GRC OR IMC.
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 HAVING FIRE/SMOKE RESISTIVE RATING EQUAL TO THE BUILDING MATERIAL PENETRATED.
8. TYPE HCF-MC METAL CLAD CABLES SHALL BE ACCEPTABLE TO BE INSTALLED IN WALLS AND CEILINGS IN CONFORMANCE WITH THE REQUIREMENTS OF NEC 334. TYPE MC CABLE SHALL BE USED ONLY FOR BRANCH CIRCUITS FOR LIGHTING AND SPECIFIC AND GENERAL PURPOSE RECEPTACLES. TYPE MC CABLE SHALL NOT BE USED FOR FEEDERS OR MULTIPLE BRANCH CIRCUIT HOMERUNS, AND MORE SPECIFICALLY, SHALL NOT BE USED FOR HVAC, AND KITCHEN EQUIPMENT BRANCH CIRCUITS. TYPE MC CABLE SHALL NOT BE UTILIZED WITHIN ELECTRICAL EQUIPMENT ROOMS. CABLE SHALL TRANSITION TO A RIGID TYPE CONDUIT PRIOR TO ENTERING ELECTRICAL EQUIPMENT ROOMS.
9. 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 15 AND NOT SHOWN ON THE ELECTRICAL DRAWINGS SHALL BE FURNISHED UNDER DIVISION 15. CONTROL POWER WIRING IS DEFINED AS THE LINE VOLTAGE (120V) POWER WIRING FOR EQUIPMENT CONTROL CABINETS, TEMPERATURE CONTROL, ENERGY MANAGEMENT, OR BUILDING AUTOMATION SYSTEM PANELS AND LINE VOLTAGE SMOKE/FIRE DAMPERS.
2. THE FURNISHING AND INSTALLATION OF THE TEMPERATURE CONTROL WIRING, ENERGY MANAGEMENT SYSTEM OR BUILDING AUTOMATION WIRING NOT SHOWN ON THE ELECTRICAL DRAWINGS SHALL BE FURNISHED UNDER DIVISION 15. TEMPERATURE CONTROL, ENERGY MANAGEMENT SYSTEM AND BUILDING AUTOMATION SYSTEM WIRING IS DEFINED AS THE INTERLOCK OR INTERCONNECTING WIRING REQUIRED BETWEEN SYSTEM CONTROL DEVICES, APPURTENANCES AND CONTROL PANELS TO ALLOW THE SYSTEM TO FUNCTION AUTOMATICALLY. THIS INCLUDES WIRING BETWEEN THE FIRE ALARM SYSTEM, SMOKE EXHAUST SYSTEMS, DOOR ENTRY SYSTEMS AND ANY OTHER SYSTEM REQUIRING INTERFACE WITH THE TEMPERATURE CONTROL, ENERGY MANAGEMENT AND BUILDING AUTOMATION SYSTEM.
3. PROVIDE POWER WIRING TO EACH MOTOR-DRIVEN AND/OR ELECTRICALLY-OPERATED SYSTEM OR UNIT OF EQUIPMENT. THE WIRING SHALL ALLOW THE MOTOR(S) OR EQUIPMENT TO OPERATE IN A MANUAL MODE.
4. CONTROL WIRING WILL, UNLESS SPECIFICALLY NOTED OTHERWISE, WILL BE FURNISHED AND INSTALLED UNDER OTHER DIVISIONS OF THE SPECIFICATIONS.
5. EXCEPT FOR ITEMS THAT ARE FURNISHED WITH FACTORY-INSTALLED, INTEGRAL MOTORS, AN ELECTRIC MOTOR OF REQUIRED SIZE AND ELECTRICAL CHARACTERISTICS WILL BE PROVIDED AND INSTALLED UNDER OTHER DIVISIONS FOR EACH ITEM OF MOTOR-DRIVEN EQUIPMENT. COMPLETE THE ELECTRICAL INSTALLATION OF THESE MOTORS IN ACCORDANCE WITH APPROVED WIRING DIAGRAMS AND INSTRUCTIONS.
6. WHERE DISCONNECT SWITCHES OR CIRCUIT BREAKERS ARE NOT PROVIDED INTEGRAL WITH CONTROL EQUIPMENT FOR MOTORS AND OTHER ELECTRICAL APPURTENANCES, PROVIDE AND INSTALL ALL DISCONNECT SWITCHES REQUIRED BY THE NATIONAL ELECTRICAL CODE AND/OR INDICATED.
7. WHERE POSSIBLE, TERMINATE CONDUITS IN CONDUIT BOXES ON MOTORS. WHERE MOTORS ARE NOT PROVIDED WITH CONDUIT BOXES, TERMINATE THE CONDUITS IN CONDUIT FITTINGS AT THE MOTORS.

H. EXISTING SYSTEMS TO REMAIN

1. THE CONTRACT DOCUMENTS DO NOT PROPOSE TO SHOW ALL EXISTING SYSTEMS, MATERIAL OR EQUIPMENT. OBTAIN DATA RELATED TO EXISTING CONDITIONS FROM EXISTING DOCUMENTS, MEASUREMENTS, NOTATIONS, PHOTOGRAPHS, SURVEYS AND OTHER OBSERVATIONS AT THE SITE.
2. REMOVE EXISTING WIRE, CONDUIT, EQUIPMENT, FIXTURES AND OTHER ITEMS TO PROVIDE ACCESS FOR WORK IN EXISTING FACILITIES. REINSTALL AND REFINISH ITEMS REMOVED, OR OTHERWISE DAMAGED, TO MATCH EXISTING ADJACENT SURFACED UPON COMPLETION OF THE WORK.
3. WHERE EXISTING FUNCTIONS TO REMAIN IN USE ARE DISRUPTED, THEY SHALL BE FULLY RESTORED AFTER DISRUPTION, IN FULL COMPLIANCE WITH THIS DIVISION OF THE SPECIFICATIONS FOR NEW WORK.
4. MODIFY, REMOVE OR RELOCATE MATERIALS AND ITEMS INDICATED ON THE DRAWINGS OR REQUIRED BY THE INSTALLATION OF NEW WORK.
5. WORKING JOINTLY WITH THE ARCHITECT, ESTABLISH AND MARK SALVAGE AND DEMOLITION ITEMS BEFORE COMMENCING WORK; REPORT ITEMS SCHEDULE FOR RELOCATION, REINSTALLATION OR REUSE, WHICH ARE FOUND TO BE IN DAMAGED CONDITION; AWAIT FURTHER INSTRUCTIONS FROM THE ARCHITECT BEFORE COMMENCING WITH WORK.
6. DEMOLITION EQUIPMENT, DEVICES AND MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR. SALVAGED EQUIPMENT AND DEVICES SHALL BE THE PROPERTY OF THE CONTRACTOR UNLESS NOTED OTHERWISE.
7. MAKE MINOR RELOCATIONS NECESSITATED BY THE CONDITIONS AT THE SITE OR AS DIRECTED BY THE ARCHITECT, WITHOUT ADDITIONAL COST TO THE OWNER. REPAIR AND RESTORE TO GOOD FUNCTIONAL CONDITION, EQUIPMENT, MATERIALS AND ITEMS SCHEDULED FOR RELOCATION, WHICH ARE DAMAGED DURING DISMANTLING OR REASSEMBLY OPERATIONS. NEW MATERIALS AND ITEMS OF SIMILAR DESIGN AND QUALITY MAY BE SUBSTITUTED FOR MATERIALS AND ITEMS INDICATED TO BE RELOCATED UPON APPROVAL OF SHOP DRAWINGS, PRODUCT DATA AND SAMPLES. REMOVE CAREFULLY, IN REVERSE ORDER TO ORIGINAL ASSEMBLY OR PLACEMENT, ITEMS WHICH ARE TO BE RELOCATED. PROTECT ITEMS UNTIL RELOCATION IS COMPLETE. CLEAN AND REPAIR ITEMS TO BE RELOCATED, AND PROVIDE NEW MATERIALS, FITTINGS AND APPURTENANCES REQUIRED TO COMPLETE THE RELOCATIONS AND TO RESTORE TO GOOD OPERATING ORDER. PERFORM THE RELOCATION WORK IN ACCORDANCE WITH APPLICABLE PORTIONS OF THESE SPECIFICATIONS, UTILIZING SKILLED WORKERS.
8. RELOCATING DEVICES: REMOVE AND REINSTALL IN LOCATIONS DESIGNATED BY THE ARCHITECT TEMPERATURE CONTROL SYSTEM DEVICES, RELAYS, WIRE, CONDUIT, FIXTURES, EQUIPMENT AND OTHER DEVICES REQUIRED FOR THE OPERATION OF THE VARIOUS SYSTEMS THAT ARE INSTALLED IN EXISTING-TO-BE-REMOVED CONSTRUCTION.

I. CONTRACTOR SHALL KEEP A CLEAN SET OF DRAWINGS ON THE JOB, NOTING DAILY ALL CHANGES MADE IN THESE DRAWINGS IN CONNECTION WITH THE FINAL INSTALLATION INCLUDING EXACT DIMENSIONED LOCATIONS OF ALL NEW AND UNCOVERED EXISTING UTILITIES AND SHALL, WITH HIS REQUEST FOR FINAL PAYMENT, TURN OVER A CLEAN, NEATLY MARKED SET OF PDF'S SHOWING "AS INSTALLED" WORK TO THE ARCHITECT FOR SUBSEQUENT REVIEW AND TRANSMITTAL TO THE OWNER. CONTRACTOR SHALL NOTE ALL CONSTRUCTION CHANGES, DATE EACH SHEET AND LABEL "AS-BUILTS" IN THE REVISION BLOCK ON THE DRAWINGS.

J. IN ADDITION TO THE ABOVE, CONTRACTOR SHALL ACCUMULATE DURING THE JOB'S PROGRESS, THE FOLLOWING DATA PREPARED IN PDF AND TURNED OVER TO THE ARCHITECT FOR REVIEW AND SUBSEQUENT DELIVERY TO THE OWNER.

1. ALL WARRANTIES AND GUARANTEES AND MANUFACTURER'S DIRECTIONS ON EQUIPMENT AND MATERIAL COVERED BY THE CONTRACT INCLUDING THE NAMES, ADDRESSES AND TELEPHONE NUMBERS OF THE MANUFACTURER'S REPRESENTATIVE.
2. APPROVED FIXTURE BROCHURES, WIRING DIAGRAMS AND CONTROL DIAGRAMS (ORIGINAL DATA, NO COPIES).
3. COPIES OF APPROVED SHOP DRAWINGS.
4. OPERATING INSTRUCTIONS FOR ALL ELECTRICAL SYSTEM EQUIPMENT. OPERATING INSTRUCTIONS SHALL ALSO INCLUDE RECOMMENDED MAINTENANCE PROCEDURES.
5. TEST REPORTS REQUIRED BY THESE SPECIFICATIONS.
6. ANY AND ALL OTHER DATA AND/OR DRAWINGS REQUIRED DURING CONSTRUCTION.
7. REPAIR PARTS LISTS OF ALL MAJOR ITEMS OF EQUIPMENT INCLUDING NAME, ADDRESS AND TELEPHONE NUMBERS OF LOCAL SUPPLIER OR AGENT.

K. ALL OF THE ABOVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR HIS REVIEW AT SUCH TIME AS THE CONTRACTOR SUBMITS HIS LAST ESTIMATE PRIOR TO HIS FINAL PAYMENT, BUT IN NO CASE, LESS THAN TWO WEEKS BEFORE FINAL INSPECTION.

COMcheck Software Version 4.0.8.1

Interior Lighting Compliance Certificate

Project Information

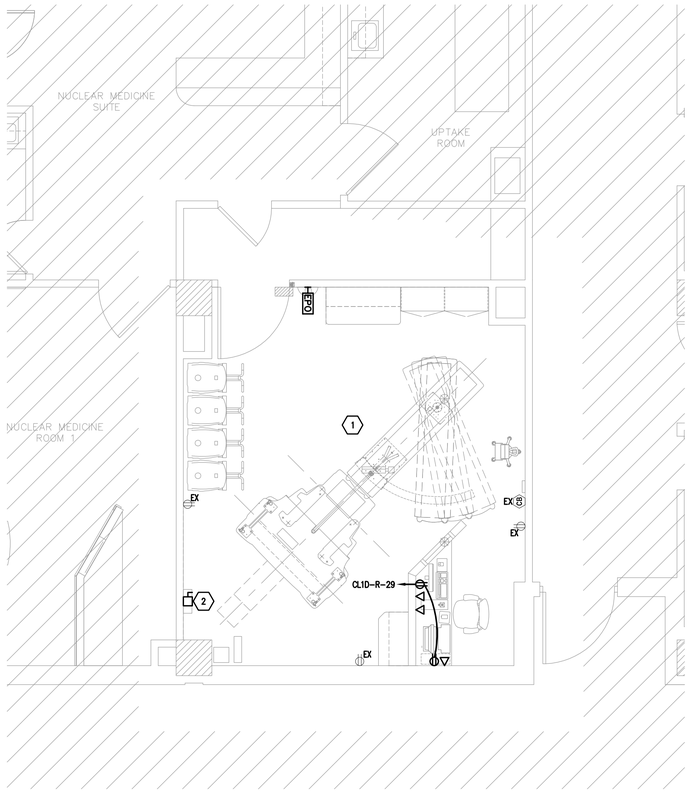
Energy Code: 2015 IECC
Project Title: TMCA South Nuc Med Replacement
Project Type: Alteration

Construction Site: 1501 S. Potomac St. Aurora, CO 80012
Owner/Agent:
Designer/Contractor:

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Healthcare Facility:Imaging	385	1.51

RSN: *1312470*
Permit #: *2018-1509154-LT*



ELECTRICAL POWER PLAN
SCALE: 1/8" = 1'-0"

All outlets, receptacles, lighting, equipment, wiring, grounding and bonding shall comply to 2017 NEC article 517.

GENERAL NOTES

A. REFER TO SHEET E0.1 FOR LEGENDS, NOTES, AND ABBREVIATIONS.

IMAGING GENERAL NOTES

A. ELECTRICAL CONTRACTOR SHALL REFER TO IMAGING VENDOR INSTALLATION DRAWINGS FOR ADDITIONAL INFORMATION AND REQUIREMENTS FOR INSTALLATION OF IMAGING EQUIPMENT. PLACEMENT OF EQUIPMENT AND SUPPORT SYSTEMS SHOWN ON THIS DRAWING ARE NOT INDICATIVE OF THE EXACT PLACEMENTS OF THE SYSTEM. ELECTRICAL CONTRACTOR MUST COORDINATE WITH THE IMAGING VENDOR INSTALLATION DRAWINGS FOR EXACT PLACEMENT AND SIZING OF THE SYSTEMS. SEE VENDOR INSTALLATION DRAWINGS FOR COMPLETE DETAILS.

B. ADDITIONAL INTERCONNECTING CONDUITS AND WIRING FOR EQUIPMENT TO BE PROVIDED BY ELECTRICAL CONTRACTOR ARE SHOWN ON IMAGING VENDOR INSTALLATION DRAWINGS. REFER TO THE IMAGING VENDOR INSTALLATION FOR ADDITIONAL CONDUITS, RACEWAY, AND WIRING REQUIREMENTS FOR INSTALLATION.

C. ELECTRICAL CONTRACTOR IS REQUIRED TO PROVIDE AND INSTALL ALL CONTRACTOR/OWNER PROVIDED EQUIPMENT, CONDUITS, AND WIRING INDICATED ON VENDOR DRAWINGS.

D. ALL CONDUIT SHALL BE UNDERFLOOR, WITHIN PARTITION, OR ABOVE THE CEILING. THERE SHALL BE NO EXPOSED CONDUIT EXCEPT OVERHEAD CONDUIT IN ROOMS WITHOUT CEILINGS.

E. PROVIDE A PULL STRING IN ALL EMPTY CONDUITS.

LEGEND NOTES

1. REFER TO NUC MED VENDOR DRAWINGS FOR ALL VENDOR REQUIRED RACEWAYS, CONDUCTORS, AND ROUGH-IN REQUIREMENTS ASSOCIATED WITH THE NEW EQUIPMENT. EXISTING RACEWAY SHALL NOT BE UTILIZED.
2. NUC MED SYSTEM MAIN DISCONNECTING MEANS, TO BE PROVIDED WITH MEDICAL EQUIPMENT.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: bmckinzi
Date: Aug 20, 2018
2015 INTERNATIONAL CODES & 2017 NEC

DWG FILENAME: NUC MED

The Medical Center of Aurora
Health ONE

NUCLEAR MED EQUIPMENT UPGRADE

MEDICAL CENTER OF AURORA

1501 S. POTOMAC ST.
AURORA, CO 80012

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

WSP USA
5613 DTC Parkway, Ste. 500
Greenwood Village, CO 80111

P: 303.694.4755
F: 303.694.4755

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 CHRISTOPHER LEE [illegible] 43840 PROFESSIONAL ENGINEER 3/9/18

PROJECT NO.: 18-09

DRAWN BY:
CHECKED BY:
SCALE: 1/8" = 1'-0"
DATE: 07.18.2018
ISSUED FOR: 100% CDS
REVISIONS:

SHEET TITLE:
POWER PLAN

SHEET NO.:
E2.1

RSN: 1312470
Permit #: 2018-1509154-LT

THIS SHEET OF DRAWINGS HAS NOT BEEN REVIEWED FOR CODE COMPLIANCE.

GENERAL NOTES

A. REFER TO SHEET E0.1 FOR LEGENDS, NOTES, AND ABBREVIATIONS.

IMAGING GENERAL NOTES

A. ELECTRICAL CONTRACTOR SHALL REFER TO IMAGING VENDOR INSTALLATION DRAWINGS FOR ADDITIONAL INFORMATION AND REQUIREMENTS FOR INSTALLATION OF IMAGING EQUIPMENT. PLACEMENT OF EQUIPMENT AND SUPPORT SYSTEMS SHOWN ON THIS DRAWING ARE NOT INDICATIVE OF THE EXACT PLACEMENTS OF THE SYSTEM. ELECTRICAL CONTRACTOR MUST COORDINATE WITH THE IMAGING VENDOR INSTALLATION DRAWINGS FOR EXACT PLACEMENT AND SIZING OF THE SYSTEMS. SEE VENDOR INSTALLATION DRAWINGS FOR COMPLETE DETAILS.

B. ADDITIONAL INTERCONNECTING CONDUITS AND WIRING FOR EQUIPMENT TO BE PROVIDED BY ELECTRICAL CONTRACTOR ARE SHOWN ON IMAGING VENDOR INSTALLATION DRAWINGS. REFER TO THE IMAGING VENDOR INSTALLATION FOR ADDITIONAL CONDUITS, RACEWAY, AND WIRING REQUIREMENTS FOR INSTALLATION.

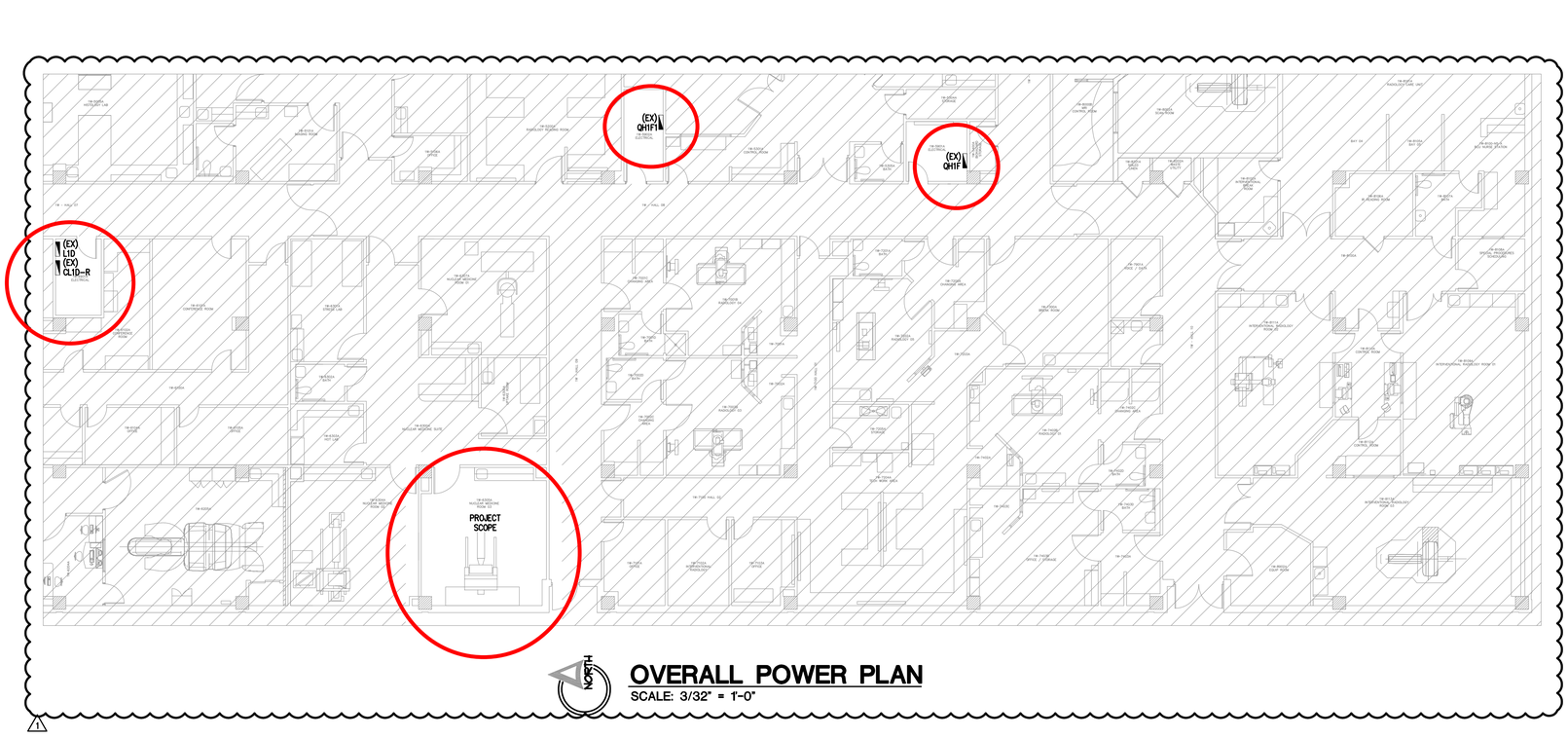
C. ELECTRICAL CONTRACTOR IS REQUIRED TO PROVIDE AND INSTALL ALL CONTRACTOR/OWNER PROVIDED EQUIPMENT, CONDUITS, AND WIRING INDICATED ON VENDOR DRAWINGS.

D. ALL CONDUIT SHALL BE UNDERFLOOR, WITHIN PARTITION, OR ABOVE THE CEILING. THERE SHALL BE NO EXPOSED CONDUIT EXCEPT OVERHEAD CONDUIT IN ROOMS WITHOUT CEILINGS.

E. PROVIDE A PULL STRING IN ALL EMPTY CONDUITS.

LEGEND NOTES

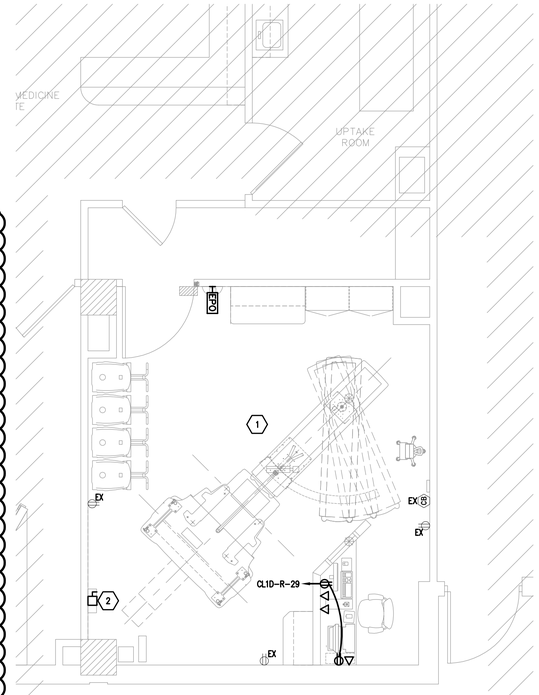
1. REFER TO NUC MED VENDOR DRAWINGS FOR ALL VENDOR REQUIRED RACEWAYS, CONDUCTORS, AND ROUGH-IN REQUIREMENTS ASSOCIATED WITH THE NEW EQUIPMENT. EXISTING RACEWAY SHALL NOT BE UTILIZED.
2. NUC MED SYSTEM MAIN DISCONNECTING MEANS, TO BE PROVIDED WITH MEDICAL EQUIPMENT.



NORTH

OVERALL POWER PLAN

SCALE: 3/32" = 1'-0"



NORTH

ELECTRICAL POWER PLAN

SCALE: 1/8" = 1'-0"

The Medical Center of Aurora
Health ONE

NUCLEAR MED EQUIPMENT UPGRADE

MEDICAL CENTER OF AURORA
1501 S. POTOMAC ST.
AURORA, CO 80012

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

WSP USA
5613 DTC Parkway, Ste. 500
Greenwood Village, CO 80111
P: 303.694.4755
F: 303.694.4755

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 REGISTERED 37340 PROFESSIONAL ENGINEER

PROJECT NO.: 18-09

DRAWN BY:
CHECKED BY:
SCALE: 1/8" = 1'-0"
DATE: 07.18.2018
ISSUED FOR: 100% CDS
REVISIONS:

1	08.22.2018	Revision 2

SHEET TITLE:
POWER PLAN

SHEET NO.:
E2.1

DWG FILENAME: NUC MED

RSN: *1312470*
Permit #: *2018-1509154-LT*

GENERAL NOTES

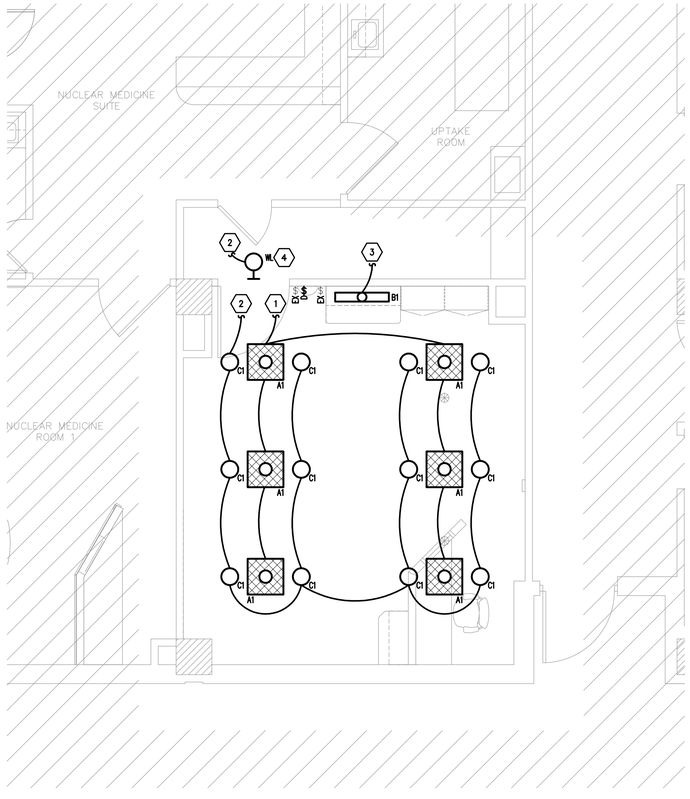
A. REFER TO SHEET E0.1 FOR LEGENDS, NOTES, AND ABBREVIATIONS.

LEGEND NOTES

1. CONNECT TO EXISTING 277V CRITICAL BRANCH LIGHTING CIRCUIT SERVING SPACE, INDICATED TO BE CH1C-3. LOAD REMOVED = 306VA, LOAD ADDED = 186VA, NET LOAD TO CIRCUIT = -120VA. CONNECT NEW LIGHTING FIXTURES TO EXISTING SINGLE POLE TOGGLE SWITCH SERVING DEMOLISHED 2X2s.
2. CONNECT TO EXISTING 120V NORMAL BRANCH LIGHTING CIRCUIT SERVING SPACE, INDICATED TO BE L1D-30. LOAD REMOVED = 360VA, LOAD ADDED = 222VA, NET LOAD TO CIRCUIT = -138VA. CONNECT NEW LIGHTING FIXTURES TO NEW 0-10V DIMMER SWITCH LOCATED WITHIN EXISTING LIGHTING SWITCH BACK BOX FOR DEMOLISHED DIMMER SWITCH.
3. CONNECT NEW UNDERCABINET LIGHTING FIXTURE TO EXISTING LIGHTING CIRCUIT SERVING DEMOLISHED UNDERCABINET FIXTURE. LOAD REMOVED = 68VA, ADDED LOAD = 20VA, NET LOAD TO CIRCUIT = -48VA. CONNECT NEW LIGHTING FIXTURES TO EXISTING SINGLE POLE TOGGLE SWITCH SERVING DEMOLISHED UNDERCABINET FIXTURE
4. COORDINATE CONNECTION TO WARNING LIGHT WITH IMAGING VENDOR DRAWINGS.

LUMINAIRE SCHEDULE – INTERIOR

TYPE	DESCRIPTION
B	DESCRIPTION: FIXTURES INDICATED IN SCHEDULE BELOW ARE ACUITY LIGHTING TO BE PURCHASED THROUGH GRAYBAR DISTRIBUTORS LAMPED: BALLASTED: VOLTAGE: INSTALLATION: MANF: 800 8TH AVENUE SOUTH NASHVILLE, TN 37203 1-800-426-4000 RECHARGEABLE/EMERGENCY QUICKSOURCE CONTACT: 615-743-3232
B1	DESCRIPTION: 2X2 LED EDGE-LIT FLAT PANEL LIGHTING FIXTURE, ALUMINUM HOUSING, SATIN WHITE ACRYLIC LENS. LAMPED: LED – 3400 LUMENS EMI – 4000K – 30.8W BALLASTED: INTEGRAL 0-10V DIMMING LED DRIVER VOLTAGE: 277V INSTALLATION: RECESSED LAY-IN GRID (OR SURFACE CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM) MANF: LITHONIA (CPX4LED-3400LM-40K-80CRI-277-4VOLT
B2	DESCRIPTION: SOLID FRONT LED UNDERCABINET LIGHT, 52 IN. WIDE, HOUSING, FLANGE AND FOLLOWING FLAT PCB MOUNTED ACRYLIC LENS, ON-OFF MOTION SENSOR, 7'-0", 5'-0", 3'-0", OR 4'-0" AS REQUIRED. PAINTED AFTER FABRICATION. CONTRACTOR SHALL PROVIDE MATCHING LENGTHS AS NEEDS BY ARCH. DETAILS AND ELEVATIONS TO RUN FIXTURES END TO END CONTINUOUSLY MAXIMIZING LENGTHS. LAMPED: LED – 5000 LUMENS EMI – 4000K – 50.4W BALLASTED: INTEGRAL LED DRIVER VOLTAGE: 277 INSTALLATION: SURFACE MANF: KICHLER/KICHLER LIGHTING (KSCS-48VL3-LED40-SS-*)
C2	DESCRIPTION: 6" LED GIMBAL BEAM DOWNLIGHT WITH 45 DEGREE CUT OFF, DIE-CAST ALUMINUM HOUSING, UNIVERSAL MOUNTING BRACKET, EXTENDED ALUMINUM HEAT SINK, FLEXIBLE MOUNTINGS, INTEGRAL LED DRIVING DEVICES, LED WITH DIFFUSER MODULE, WIDE-SPECULAR CLEAR, MATTE WHITE SELF-FLANGED GIMBAL RING, MATTE WHITE REFLECTOR LAMPED: LED – 1000 LUMENS EMI – 4000K – 14.5W BALLASTED: INTEGRAL 0-10V DIMMING LED DRIVER – DIM TO 1% VOLTAGE: 120V INSTALLATION: RECESSED LAY-IN GRID (OR DRYWALL CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM) MANF: ACUITY gfdn-rl/6-40k-s8-120-6VOLT-dl-WH
WL	DESCRIPTION: LED RECESSED 3-WAY "IN USE" LIGHT, DIE-CAST ALUMINUM HOUSING, WHITE HOUSING AND FACEPLATE, DECAL STYLE WITH RED LETTERS. LAMPED: LED – INCLUDED BALLASTED: VOLTAGE: 120/277V 60LD-3W BALLAST INSTALLATION: RECESSED IN WALL 4SQUARE BOXES MANF: LITHONIA gld-r-3-1-n-3L120/277-3000



NORTH

ELECTRICAL POWER PLAN

SCALE: 1/8" = 1'-0"

Provide emergency illumination equipment that complies with 2017 NEC 700.12 (F) or 2017 NEC 700.

Suspended ceiling systems and the luminaires they support shall meet the requirements of 2017 NEC 410.36(B).

All wiring shall comply with 2017 NEC 517

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: bmckinzi
Date: Aug 20, 2018
2015 INTERNATIONAL CODES & 2017 NEC

DWG FILENAME: NUC MED

The Medical Center of Aurora
Health ONE

NUCLEAR MED EQUIPMENT UPGRADE

MEDICAL CENTER OF AURORA

1501 S. POTOMAC ST.
AURORA, CO 80012

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

WSP USA
5613 DTC Parkway, Ste. 500
Greenwood Village, CO 80111
P: 303.694.4755
F: 303.694.4755

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
JOSEPH LEE
43860
PROFESSIONAL ENGINEER
7/9/18

PROJECT NO.: 18-09

DRAWN BY:
CHECKED BY:
SCALE: 1/8" = 1'-0"
DATE: 07.18.2018
ISSUED FOR: 100% CDS
REVISIONS:

SHEET TITLE:
LIGHTING PLAN

SHEET NO.:
E3.1

AVAILABLE FAULT CURRENT CALCULATIONS

UTILITY CONTRIBUTION

Utility Fault Current	45200 Amperes	kVA	=	2000
		E	=	480
I = (kVAx1000)/(Ex1.732) = trans FLA		trans FLA	=	2405.697

FAULT CURRENT FROM . . UTILITY TO MSBA

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

Conductor Length (distance)	L	=	150
ASC	ISCA	=	45,200
# conductors per phase	N	=	11
Phase conductor constant	C	=	26706
Voltage L-L	EL-L	=	480
f = (1.732xLxISCA)/(NxCxEL-L)	f	=	0.083
M = 1/(1+f)	M	=	0.923
ISCA = ISCA x M	ISCA	=	41,725

FAULT CURRENT FROM . . PANEL MSBA TO ATS-800A

Feeder: 2 sets 4 # 350
Conductor (Copper/Aluminum): Copper
Raceway (Steel/Aluminum): Steel
Voltage: 480

Conductor Length (distance)	L	=	20
ASC	ISCA	=	41,725
# conductors per phase	N	=	2
Phase conductor constant	C	=	19703
Voltage L-L	EL-L	=	480
f = (1.732xLxISCA)/(NxCxEL-L)	f	=	0.076
M = 1/(1+f)	M	=	0.929
ISCA = ISCA x M	ISCA	=	38,763

FAULT CURRENT FROM . . ATS-800A TO PANEL QH1F

Feeder: 2 sets 4 # 350
Conductor (Copper/Aluminum): Copper
Raceway (Steel/Aluminum): Steel
Voltage: 480

Conductor Length (distance)	L	=	450
ASC	ISCA	=	38,763
# conductors per phase	N	=	2
Phase conductor constant	C	=	19703
Voltage L-L	EL-L	=	480
f = (1.732xLxISCA)/(NxCxEL-L)	f	=	1.597
M = 1/(1+f)	M	=	0.385
ISCA = ISCA x M	ISCA	=	14,925

FAULT CURRENT FROM . . PANEL QH1F TO PANEL QH1F1

Feeder: 2 sets 4 # 3/0
Conductor (Copper/Aluminum): Copper
Raceway (Steel/Aluminum): Steel
Voltage: 480

Conductor Length (distance)	L	=	45
ASC	ISCA	=	14,925
# conductors per phase	N	=	2
Phase conductor constant	C	=	12843
Voltage L-L	EL-L	=	480
f = (1.732xLxISCA)/(NxCxEL-L)	f	=	0.094
M = 1/(1+f)	M	=	0.914
ISCA = ISCA x M	ISCA	=	13,638

EXISTING PANEL: CL1D-R

CRITICAL (1)

LOCATION: ELEC RM 1-1145
MAIN BUS: 125A
MCB: N/A
VOLTAGE: 208/120
AIC: 10,000A

FED FROM: CL1C
WIRES: 4W + G
ENCLOSURE: NEMA 1
BUS TYPE: Copper
MOUNTING: Surface
PANEL LUGS: Main Lugs Only

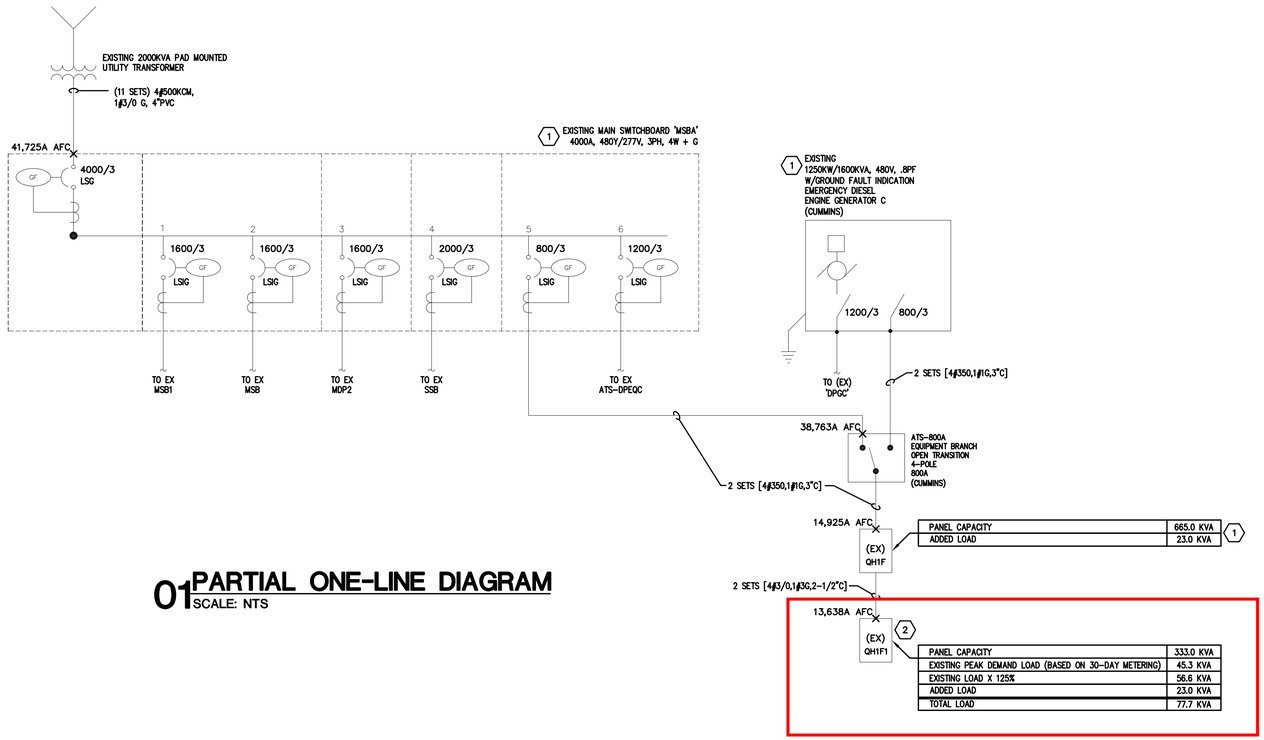
NEUTRAL BUS: Yes
GROUND BUS: Yes
ISOLATED GROUND BUS: No
200% NEUTRAL: No
FEED THROUGH LUGS: No

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
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	50	2	–	EXISTING LOAD	12
13	EXISTING LOAD	–	20	1	A	–	–	–	---	14
15	SPARE	–	20	1	B	20	1	–	EXISTING LOAD	16
17	EXISTING LOAD	–	20	1	C	20	2	–	EXISTING LOAD	18
19	EXISTING LOAD	–	20	1	A	–	–	–	---	20
21	EXISTING LOAD	–	20	1	B	20	1	–	EXISTING LOAD	22
23	EXISTING LOAD	–	20	1	C	20	1	–	EXISTING LOAD	24
25	EXISTING LOAD	–	20	1	A	20	1	–	EXISTING LOAD	26
27	EXISTING LOAD	–	20	1	B	20	2	–	EXISTING LOAD	28
29	+RCPT – NUC MED RM #2	360	20	1	C	–	–	–	---	30
31	S.O.	–			A			–	S.O.	32
33	S.O.	–			B			–	S.O.	34
35	S.O.	–			C			–	S.O.	36
37	S.O.	–			A			–	S.O.	38
39	S.O.	–			B			–	S.O.	40
41	S.O.	–			C			–	S.O.	42

NOTES:
+ INDICATED LOAD ADDED TO EXISTING SPARE CIRCUIT BREAKER.

"CL1D-R" LOAD SUMMARY

	LTS	RCPTS	MISC	TOTAL (KVA)	TOTAL (AMPS)
TOTAL CONNECTED LOAD	0.0	0.4	0.0	0.4	1.0
DEMAND FACTOR	SEE DEMAND FACTOR TABLE				
TOTAL DEMAND LOAD	0.0	0.4	0.0	0.4	1.0
CONTINUOUS (DESIGN) FACTOR	1.25	1.00	1.00		
TOTAL DESIGN LOAD	0.0	0.4	0.0	0.4	1.0



01 PARTIAL ONE-LINE DIAGRAM
SCALE: NTS

RSN: *1312470*
Permit #: *2018-1509154-LT*

GENERAL NOTES

A. REFER TO SHEET E0.1 FOR LEGENDS, GENERAL NOTES AND ABBREVIATIONS.
B. ALL NEW BREAKERS ADDED TO EXISTING PANELS ARE REQUIRED TO MEET OR EXCEED THE AVAILABLE FAULT CURRENT. IF THE EXISTING PANEL CANNOT ACCEPT A NEW BREAKER WITH THE REQUIRED AIC RATING, A NEW PANEL SHALL BE PROVIDED.

LEGEND NOTES

1 (1) ADDED LOAD IS LESS THAN 5% OF THE PANELBOARD/ SWITCHBOARD,S RATED CAPACITY. THEREFORE, METERING IS NOT REQUIRED.
(2) PROVIDE NEW 25A/3P CIRCUIT BREAKER WITHIN EXISTING PREPARED SPACE. COORDINATE REQUIRED CIRCUIT BREAKER MANUFACTURER AND FRAME TYPE WITH EXISTING PANEL MANUFACTURER. CIRCUIT BREAKER AIC RATING GREATER THAN OR EQUAL TO THE CALCULATED AFC.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: bmckinzi
Date: Aug 24, 2018
2015 INTERNATIONAL CODES & 2017 NEC

The Medical Center of Aurora
Health ONE

NUCLEAR MED EQUIPMENT UPGRADE

MEDICAL CENTER OF AURORA
1501 S. POTOMAC ST.
AURORA, CO 80012

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

WSP USA
5613 DTC Parkway, Ste. 500
Greenwood Village, CO 80111
P: 303.694.4755
F: 303.694.4755

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 — 44140 — PROFESSIONAL ENGINEER — 6/22/18

PROJECT NO.: 18-09
DRAWN BY:
CHECKED BY:
SCALE: 1/8" = 1'-0"
DATE: 07.18.2018
ISSUED FOR: 100% CDS
REVISIONS:
1 08.22.2018 Revision 2

SHEET TITLE:
ELECTRICAL ONE-LINE DIAGRAM

SHEET NO.:
E4.1

DWG. FILENAME: NUC MED

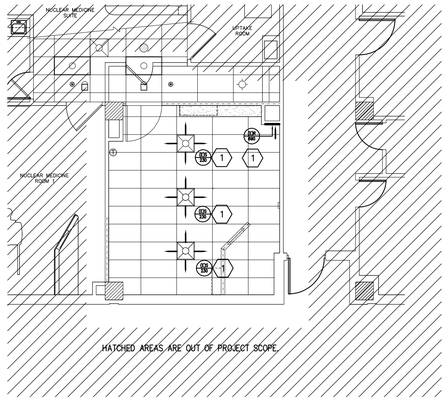
RSN: *1312470*
Permit #: *2018-1509154-LT*

GENERAL NOTES

A. THE INTENDED MECHANICAL SCOPE OF THIS PROJECT IS LIMITED TO THE REBALANCING OF EXISTING DIFFUSERS.

LEGEND NOTES

(1) BALANCE EXISTING DIFFUSERS TO SPECIFIED AIRFLOW.



NORTH

MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: bmckinzi
Date: Aug 24, 2018
2015 INTERNATIONAL CODES & 2017 NEC

The Medical Center of Aurora
Health ONE

NUCLEAR MED EQUIPMENT UPGRADE

MEDICAL CENTER OF AURORA

1501 S. POTOMAC ST.
AURORA, CO 80012

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

WSP USA
5613 DTC Parkway, Ste. 500
Greenwood Village, CO 80111

P: 303.694.4755
F: 303.694.4755

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 PROFESSIONAL ENGINEER
43946
3/2/18

PROJECT NO.: 18-09

DRAWN BY: JR
CHECKED BY: JS
SCALE: 1/8" = 1'-0"
DATE: 07.18.2018
ISSUED FOR: 100% CDS
REVISIONS:

SHEET TITLE:
MECHANICAL PLAN

SHEET NO.:
M2.1

DWG FILENAME: NUC MED

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 THRU D2

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 NM/CT 640

Pre Installation Manual

5426783–1EN

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

RSN: *1312470*
Permit #: *2018-1509154-LT*

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



Nuclear Medicine Site Planning

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.

Before using this document ensure you have the latest Rev from MyWorkshop on DOC1809666

Global Site Readiness Checklist (DI)

Customer Name:	PMI Name:
GON Number :	Field Service Name:
Equipment:	Country / City or City/State:
1) Check site before Delivery/Storage	
2) Check site before installation start	

Place an "X" in either Y or N column

Site Ready Checks at Installation	Y		
Room dimensions, including ceiling height, for all Exam, Equipment/Technical & Control rooms meets GE specifications.			mandatory if no or blank
Ceiling support structure, if indicated on the GE drawing, is in the correct location, at the correct height, levelness and spacing has been measured.			mandatory if no or blank
Rooms that will contain equipment, including staging areas if applicable, are construction debris free. Precautions must be taken to prevent debris from entering rooms containing equipment.			mandatory if no or blank
Finished ceiling is installed. If applicable ceiling tiles installed per PMI discretion.			mandatory if no or blank
Adequate delivery route from truck to Final place of installation has been reviewed with all stakeholders, all communications/notifications have occurred, arrangements have been made for special handling (rigging, elevator, fork lift, etc.). All floors along delivery route will support weight of the equipment, temporary reinforcements arranged if needed.			mandatory if no or blank
System power & grounding (PDB/MDP) is available as per GE specifications, installed at point of final connection and ready to use. Lock Out Tag Out is available.			mandatory if no or blank
System power and grounded audit has been scheduled to be completed during installation of equipment. (If Required) GEHC PM to confirmed if needed.			mandatory if no or blank
Adequate room illumination installed and working.			mandatory if no or blank
Cable ways (floor/wall/ceiling/Access Flooring) are available for installation of GE cables and are of correct length and diameter. Cable ways routes per GE Final drawings and cable access openings areas installed at a time determined by GEHC PM. Surface floor duct can be installed at time of system installation.			mandatory if no or blank
HVAC systems Installed, and the site meets minimum environmental operational system requirements.			mandatory if no or blank
Network outlets installed and computer network available and working.			mandatory if no or blank
Hospital IT/connectivity contacts have been engaged and information has been added to Project management tool. (If Required)			mandatory if no or blank
Floor levelness/flatness is measured and within tolerance, and there are no visible defects per GEHC specifications. Floor Strength and thickness have been discussed with customer/contractor and they will confirm GE requirements are			mandatory if no or blank
Customer supplied countertops where GE equipment will be installed are in place.			mandatory if no or blank
Nuclear Medicine systems levelness measurement survey must be provided to GE prior the delivery.			mandatory if no or blank
Site has license for using/importing radioactive sources and a Hot Lab is available. Radioactive Sources should be available for system calibration during installation.			mandatory if no or blank
Doors and windows complete or scheduled to be installed. If applicable, radiation protection (shielding) finished & radioprotection regulatory approval for installation obtained.			mandatory if no or blank
STATUS OF WORK			

GENERAL COMMENTS		
SYSTEM CAN BE DELIVERED		PMI Signature:
SITE READY FOR INSTALLATION		FS Signature:

GE Healthcare
Healthcare Project Management – Design Center
Milwaukee, Wisconsin
Copyright 2009 General Electric Company – Proprietary to GE

SHEET TITLE: SITE READINESS
MODALITY TYPE: OPTIMA NM/CT 640

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ELECTRICAL WIRING DETAILS 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. CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
M105087	00A

DATE: 15.Jun.18
DRAWN BY: KMS
CHECKED BY: CPC
GON NO: 4651114
GON DT: 05.Jun.18

REVISION HISTORY:

SHEET
C1

This drawing is based on Sketch No.: NUC-M090228-00C.dwg
PIM R3
RQ – DC–59347

GE EQUIPMENT LISTING

EQUIPMENT ON ORDER FROM GE HEALTHCARE, INSTALLED BY GE HEALTHCARE, PER GON 4651114 DATED 05.Jun.18

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	TABLE EXTENDER			B81059	-		-
2	1	UPS SYSTEM	33 lbs		R4504AA	-	UPS1	S
3	4	OPTIMA NM/CT 640 COLLIMATOR CART	727 lbs		B640C	O		-
4	1	STORAGE CABINET (EMPTY CABINET WEIGHT)	99 lbs		M33005	-		-
5	1	R-WAVE TRIGGER	6 lbs		H2505EC	-	ECG	S
6	1	IVY MOBILE CART	13 lbs		B4305R	-		-
7	1	6 KVA UPS	125 lbs	1959 btu	B640M	-	UPS	-
8	1	TRANSFORMER FOR 6 KVA UPS	77 lbs	1000 btu	B640N	-	TRAN	-
9	1	OPTIMA NM/CT 640 TABLE	1122 lbs	682 btu	B640A	-	NMT	S
10	1	TABLE SWING PLATE FOR COLLIMATOR EXCHANGE				-		-
11	1	OPTIMA NM/CT 640 GANTRY (CT)	1984 lbs	3139 btu	B640B B640D B640E B640F B640G B640H B640K B640P B640Q B0577	-	CTT	S
12	1	LIMIT OF TABLE TRAVEL				-		-
13	1	OPTIMA NM/CT 640 GANTRY (NUCLEAR)	4828 lbs	4501 btu		-	NMC	S
14	1	EMO PUSHBUTTON			B81058	-	EMO	-
15	1	ESTOP PUSHBUTTON			B81061	-	ESTP	-
16	1	OPTIMA NM/CT 640 AQUISITION WORKSTATION	44 lbs	255 btu	B640J	O	AC	-

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. E4502SU	50 lbs		R4502AB	-	A1	C

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

EQUIPMENT LAYOUT

EXISTING CEILING HEIGHT = 9'-0"

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.

RSN: *1312470*
Permit #: *2018-1509154-LT*

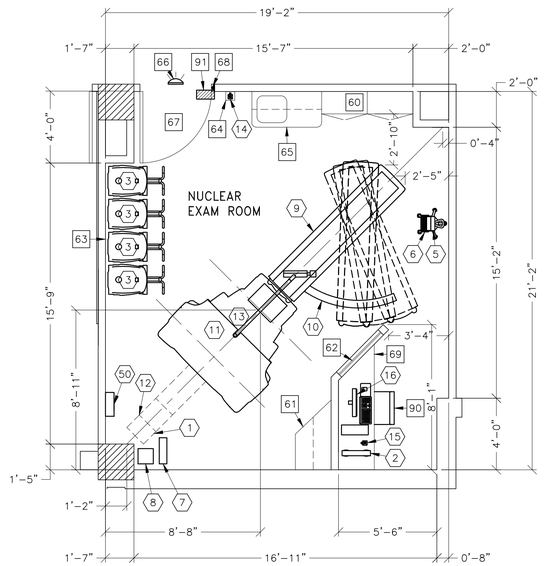
IMPORTANT CUSTOMER READINESS ALERT:

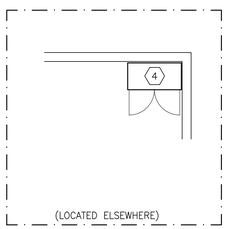
THIS EQUIPMENT INVOLVES THE USE OF RADIOACTIVE ISOTOPES, INCLUDING THOSE SOURCES NECESSARY FOR EQUIPMENT CALIBRATION. APPROPRIATE REGULATORY COMPLIANCE AND LICENSING MUST BE ARRANGED BY THE CUSTOMER EARLY IN THE PLANNING PROCESS AND THEN DEMONSTRATED/AVAILABLE FOR EQUIPMENT INSTALLATION.

ASSIGNED BY THE HOSPITAL NET ADMIN IF CONNECTING TO THE HOSPITAL LAN	HOSTNAME	IP	AE TITLE	DICOM PORT
ACQUISITION HOST				
PROCESSING HOST				
HARDCOPY HOST				
LAN NET MASK				
GATEWAY TO OTHER NETWORKS				
OTHER				
HUB OR SWITCH				

- PREPARE ADEQUATE NETWORK SOCKETS IN THE PROPER LOCATIONS TO SUPPORT ALL ACQUISITION, LOCAL AND REMOTE WORKSTATION.
- IT DEPARTMENT MUST ASSIGN DEDICATED IP ADDRESSES (NOT DHCP) NOTE THE ADDRESSES BELOW FOR THE ACQUISITION, LOCAL AND REMOTE WORKSTATIONS.
- PREPARE BROADBAND CONNECTIVITY LINE AND DEDICATED IP ADDRESSES FOR INSITE CONNECTIVITY.
- REFER TO TABLE ON A1 PAGE

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





GE Project Manager: TONY SCHRADER
Telephone: 720-467-4290
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:HSITECS2GE@ge.com

ANCILLARY ITEMS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
60	CABINET
61	COUNTER TOP WITH BASE AND WALL CABINETS
62	LEAD GLASS WINDOW
63	OPTIONAL WALL PROTECTION FROM COLLIMATOR CART. ALSO, FINISHED FLOORING COULD BE SUBJECT TO DAMAGE DURING MOVEMENT AND BEING PARKED FOR A LONG PERIOD. SUFFICIENT FLOORING MUST BE USED TO PREVENT DAMAGE.
64	CUSTOMER SUPPLIED SHELF
65	COUNTER TOP WITH SINK, BASE AND WALL CABINETS
66	X-RAY ON WARNING LIGHT - AVAILABLE FROM GEXPRO CALL: 800-200-9760 GE CAT. NO. WX1ABWW-0F-X1U
67	MINIMUM DOOR OPENING FOR EQUIPMENT DELIVERY IS 55.1" W x 82" H (1399mm x 2083mm). CONTINGENT ON A 96" (2438mm) CORRIDOR WIDTH. NOTE: DISMOUNTED DETECTOR SHIPPING OPTION (GE CAT. NO. H2506TR), MINIMUM DOOR WIDTH IS 43.3" W (1100mm)
68	DOOR LIMIT SWITCH (REQUIRED IN SOUTH CAROLINA, OTHERWISE NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)
69	COUNTER TOP FOR EQUIPMENT

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	OPERATORS CHAIR
91	X-RAY ROOM WARNING LIGHT CONTROL PANEL REFERENCE JUNCTION POINT 'WLC' ON SHEET 'E1' FOR DETAILED DESCRIPTION -E4500AK 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 9843 FT. (3000M) 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

- 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.
- 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.
- CONSOLE EQUIPMENT MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN TEN GAUSS TO OBTAIN SPECIFIED GEOMETRIC LINEARITY.

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

This drawing is based on Sketch No.: NUC-M090228-00C.dwg
RQ - DC-59347 PIM R3

GE Healthcare
Healthcare Project Management - Design Center
Wisconsin
Milwaukee,

SHEET TITLE: EQUIPMENT LAYOUT
MODALITY TYPE: OPTIMA NM/CT 640

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT. ALL ASSOCIATED ELECTRICAL WORK SHOULD BE REVIEWED WITH LOCAL CODES. 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. COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
M105087	00A

DATE: 15.Jun.18
DRAWN BY: KMS
CHECKED BY: CPC
GON NO: 4651114
GON DT: 05.Jun.18

REVISION HISTORY:

SHEET
A1

TYPICAL WALL SUPPORT ELEVATIONS

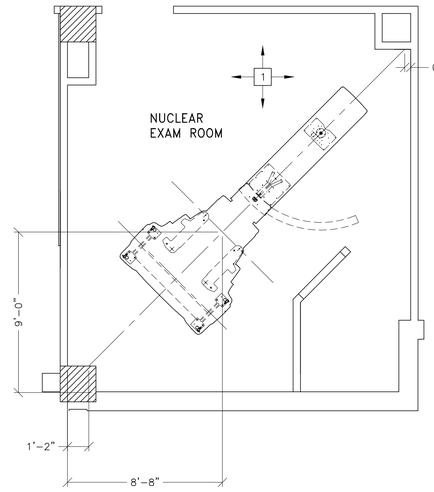
SCALE: 1/4" = 1'-0"

STRUCTURAL LAYOUT

EXISTING CEILING HEIGHT = 9'-0"

RSN: *1312470*
Permit #: *2018-1509154-LT*

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



GE Project Manager: TONY SCHRADER
Telephone: 720-467-4290
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	FLOOR LEVELNESS IN THE EXAM ROOM MUST BE LEVEL WITHIN 1/8 IN. [3 MM] OVER 120 IN. [3048MM]. FLOOR FLATNESS IN THE EXAM ROOM MUST HAVE NO DEVIATIONS GREATER THAN 3/16" [0.5 CM] OVER 60 IN. [150 CM]. REFER TO FULL SIZE FLOOR TEMPLATE FOR ALL DRILLING/ FLOOR PENETRATION REQUIREMENTS. IN ORDER TO ENABLE MOUNTING OF THE SYSTEM FLOOR ANCHORS CONCRETE FLOORS MUST HAVE A MINIMUM CURE STRENGTH OF F'C = 4350 PSI (30MPa) at 28 DAYS (CURING TIME) FOR 3/30 CONCRETE, AND MUST BE AT LEAST 140mm (5.5") THICK. IT IS THE CUSTOMERS RESPONSIBILITY TO HAVE APPROPRIATE TESTS PERFORMED TO DETERMINE AND MEASURE CONCRETE STRENGTH. IF THE OPTIMA NM/CT 640 SYSTEM IS INSTALLED ON A FLOOR TYPE THINNER THAN A 140mm (5.5") CONCRETE FLOOR, THE CUSTOMER SHALL, AT ITS EXPENSE, PROVIDE ACCEPTABLE ANCHORING AND MOUNTING METHODS THAT MEET ALL STRUCTURAL SPECIFICATIONS PROVIDED IN THE PRE-INSTALLATION MANUAL. VIBRATION REQUIREMENTS. THE MAXIMUM STEADY STATE VIBRATION TRANSMITTED THROUGH THE FLOOR SHOULD NOT EXCEED 0.001 PER METER SQUARED RMS MAXIMUM SINGLE FREQUENCY ABOVE AMBIENT BASELINE FROM 0.5 TO 80 HZ (MEASURED IN ANY 1 HOUR DURING A NORMAL OPERATING PERIOD). THE BEHAVIORAL CHARACTERISTICS MUST BE SUCH THAT ANY MEASURABLE TRANSIENT DISTURBANCE MUST ALSO BE MINIMIZED TO LESS THAN 0.01 PER METER SQUARED PEAK-TO-PEAK.

STRUCTURAL NOTES

- 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.
- FLOOR SLABS ON WHICH EQUIPMENT IS TO BE INSTALLED MUST BE LEVEL TO SPECIFICATIONS. (IF NOT SPECIFIED ELSEWHERE ON THIS SHEET THE FLOOR LEVELNESS SHOULD BE 1/8 IN. [3 MM] IN 10 FT. [3.05 M].
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM.
- FOR SEISMIC REGIONS ENSURE SUPPORTS SPAN THREE MEMBERS.
- 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"

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

RQ - DC-59347 PIM R3 This drawing is based on Sketch No.: NUC-M090228-00C.dwg

GE Healthcare
Healthcare Project Management - Design Center
Milwaukee, Wisconsin

SHEET TITLE: STRUCTURAL LAYOUT
MODALITY TYPE: OPTIMA NM/CT 640

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT ASSOCIATED WITH THIS PROJECT. IT DOES NOT INCLUDE ARCHITECTURAL ELEMENTS. 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:
MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
M105087	00A

DATE: 15.Jun.18
DRAWN BY: KMS
CHECKED BY: CPC
GON NO: 4651114
GON DT: 05.Jun.18

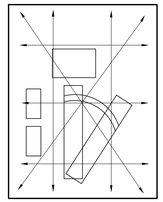
REVISION HISTORY:

SHEET
S1

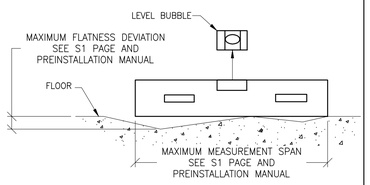
SUPPORT DETAIL

LEVELING AND FLATTENING FLOOR AREA DETAIL

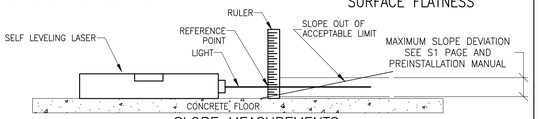
B3000X
REV. DATE: 04.May.2012



MEASUREMENT DIRECTIONS



SURFACE FLATNESS



SLOPE MEASUREMENTS

CUSTOMER/CONTRACTOR IS RESPONSIBLE FOR MEASURING FLOOR LEVELNESS/FLATNESS AND PROVIDING THE RESULTS TO A GEHC REPRESENTATIVE (FE OR PM) BEFORE FINISHED FLOORING IS INSTALLED. SEE S1 PAGE AND SPECIFICATIONS FROM PREINSTALLATION MANUAL FOR MORE INFORMATION. FLOOR REQUIREMENTS ARE CRITICAL TO INSTALLATION/OPERATION OF SYSTEM!

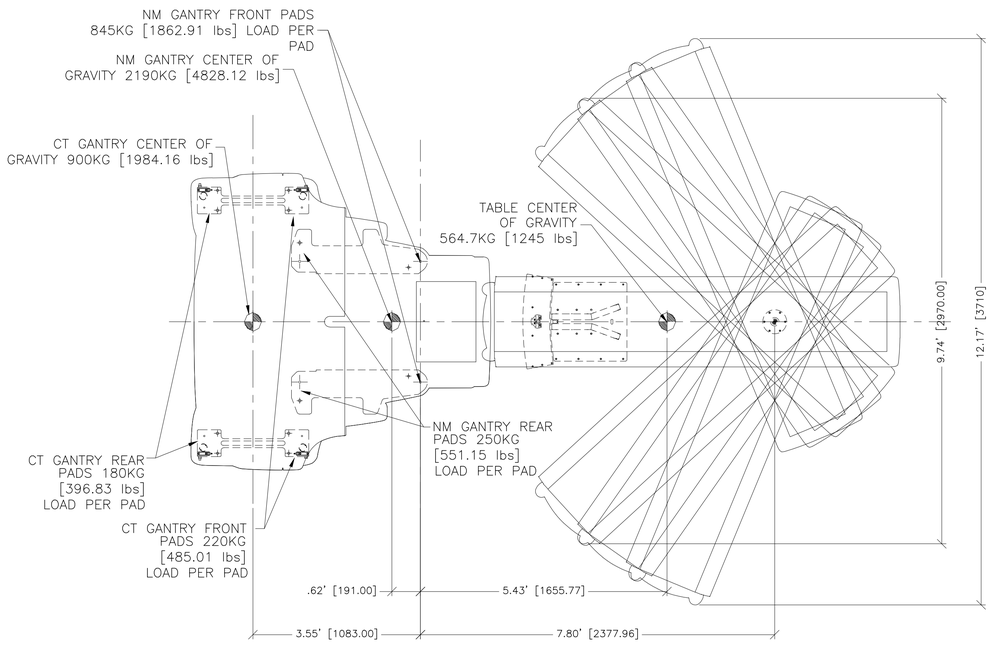
DETAIL NOT TO SCALE

RSN: *1312470*
Permit #: *2018-1509154-LT*

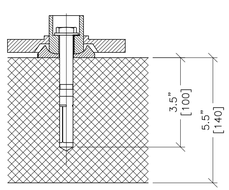
This sheet of drawings has not been reviewed for code compliance.

OPTIMA NM/CT 640 GANTRY AND TABLE ANCHOR/LEVELING

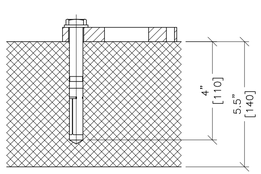
B640A
REV. DATE: 27.FEB.15



MEASUREMENT LEGEND
FEET AND [MILLIMETERS]



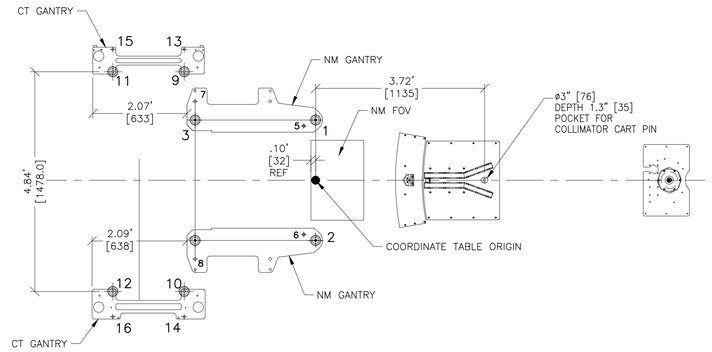
NM GANTRY MAIN ANCHORING



CT GANTRY MAIN ANCHORING

OPTIMA NM/CT 640 GANTRY AND TABLE ANCHOR/LEVELING

B640B
REV. DATE: 13.APR.15



No.	X	Y	DRILL HOLE	HOLE DEPTH	ANCHORED PART	HOLE PURPOSE	DRILLING METHOD	ANCHOR TYPE	TORQUE Nm	SECTION
1	0.0	405.0	ø15.0	100.0	NM GANTRY	MAIN ANCHOR	METAL DRILLING JIG	HILTI HSL-3 M10/40	50	FIG 1
2	0.0	-405.0								
3	-810.0	405.0								
4	-810.0	-405.0								
5	-80.0	365.0				ALTERNATIVE ANCHOR				
6	-80.0	-365.0								
7	-810.0	530.0								
8	-810.0	-530.0								
9	-883.3	729.5		110.0	CT TRANSPORTER PLATES	MAIN ANCHOR	DRILLING THRU THE PLATES USING NM/CT POSITIONING JIG	HILTI HSL-3 M10/40		FIG 2
10	-883.3	-748.5								
11	-1363.3	729.5								
12	-1363.3	-748.5								
13	-883.3	879.5				ALTERNATIVE ANCHOR				
14	-883.3	-918.5								
15	-1363.3	879.5								
16	-1363.3	-918.5								

GE Healthcare
Healthcare Project Management – Design Center
Milwaukee, Wisconsin

SHEET TITLE: STRUCTURAL DETAILS
MODALITY TYPE: OPTIMA NM/CT 640

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ARCHITECTURAL AND ENGINEERING REQUIREMENTS. THIS PLAN IS NOT A CONSTRUCTION DRAWING. IT IS NOT TO BE USED FOR 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. GE HEALTHCARE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
M105087	00A

DATE: 15.Jun.18
DRAWN BY: KMS
CHECKED BY: CPC
GON NO: 4651114
GON DT: 05.Jun.18

REVISION HISTORY:

SHEET
S2

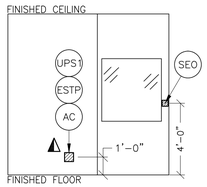
This drawing is based on Sketch No.: NUC-M090228-00C.dwg
PIM R3
RQ – DC-59347

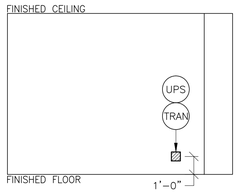
RSN: *1312470*
Permit #: *2018-1509154-LT*

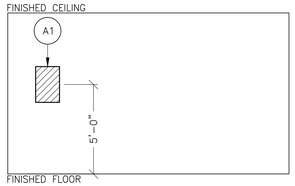
SCALE: 1/4" = 1'-0"

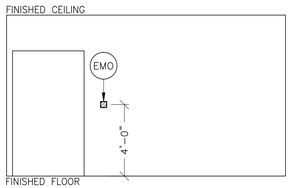
ELECTRICAL PLAN

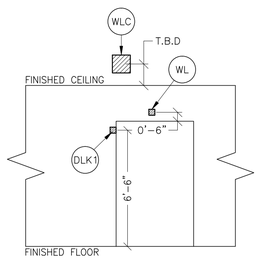
EXISTING CEILING HEIGHT = 9'-0"











FEEDER TABLE – OPTIMA NM/CT 640

- 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 6 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 AT THE MAIN DISCONNECT PANEL
- FOR A FULL SYSTEM UPS REFER TO ELECTRICAL DETAILS FOR UPS FEEDER WIRES.

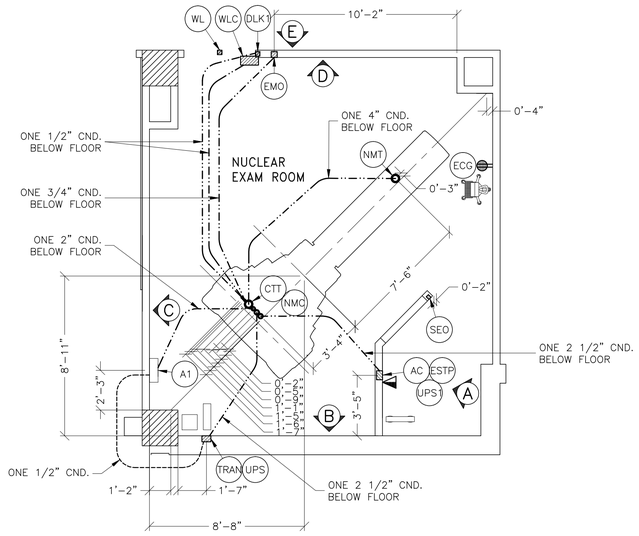
RUN LENGTH IN FEET	POWER SUPPLY VOLTAGE											
	342–418 380		360–440 400		378–462 420		396–484 440		414–506 460		**432–528 480**	
	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND
50	6	6	6	6	6	6	6	6	6	6	**6**	**6**
100	6	6	6	6	6	6	6	6	6	6	**6**	**6**
150	4	4	4	4	4	4	4	4	4	4	**4**	**4**
200	4	4	4	4	4	4	4	4	4	4	**4**	**4**
250	4	4	4	4	4	4	4	4	4	4	**4**	**4**
300	4	4	4	4	4	4	4	4	4	4	**4**	**4**
350	4	4	4	4	4	4	4	4	4	4	**4**	**4**
400	4	4	4	4	4	4	4	4	4	4	**4**	**4**

REV. DATE: 16.Sep.14

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.

All outlets, receptacles, lighting, equipment, wiring, grounding and bonding shall comply with 2017 NEC article 517



ADDITIONAL CONDUIT RUNS OPTIMA NM/CT 640 (BY CONTRACTOR)

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

REV DATE: 09.JUL.2014

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

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 OUTLET SAME FEEDER CIRCUIT AS "FEEDER" PANEL
- NETWORK OUTLET (SEE ELECTRICAL DETAILS ELEC-83 AND ELEC-84 OR ELEC-87)

GE Project Manager: TONY SCHRADER
Telephone: 720-467-4290

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.	THE FOLLOWING MATERIALS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER'S ELECTRICAL CONTRACTOR: HARDWARE	DETAIL NO., SHT. E3
A1	MAIN DISCONNECT	1	PANEL – INCLUDED IN ORDER	ELEC-35
AC	ACQUISITION COMPUTER	1 1 1	COVERPLATE 6" X 6" X 4" IN. BOX 1 1/2 IN. DIA. CHASE NIPPLE	ELEC-8
CTT	CT GANTRY	1	SAME ROUTING AS 'NMC'	
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	
ECG	ECG TRIGGER	1	EXTERNALLY CONNECTED	
EMO	EMO PUSHBUTTON	1 1 1	COVERPLATE 4" X 4" X 4" IN BOX 3/4 IN. DIA CHASE NIPPLE	ELEC-8
ESTP	ESTOP PUSHBUTTON	1	SAME ROUTING AS 'AC'	
NMC	NUCLEAR MEDICINE CAMERA	1	SUITABLE BUSHING & LOCKNUT	ELEC-9
NMT	PATIENT TABLE	1	OPENING IN CONDUIT MUST BE CUT FLUSH WITH FINISHED FLOOR	
SEO	EMERGENCY OFF	1	SINGLE GANG 2 1/2 IN. DEEP FLUSH MOUNTED JUNCTION BOX.	ELEC-16
TRAN	UPS TRANFORMER	1	EXTERNAL CONNECTION	
UPS	UPS CABINET	1 1 1	2@ 1/2 IN. DIA. CHASE NIPPLE 6" X 6" X 4 IN. BOX COVERPLATE	ELEC-8
UPS1	UPS CABINET	1	EXTERNALLY CONNECTED	
WL	WARNING LIGHT	1	'X-RAY ON' INCANDESCENT LIGHT FIXTURE DO NOT USE FLUORESCENT FIXTURES GE CAT. NO. WX1ABWW-OF-X1U	
WLC	WARNING LIGHT CONTROLLER AVAILABLE FROM GEHC, CALL 800-279-7925 OR LOCAL GE INSTALLATION PROJECT MGR.	1	E4500AK 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
A1 > SEO	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN
WLC > 1 PHASE	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN
480-V > A1	3-BLACK, 1-WHITE, 1-GREEN – REFER TO FEEDER TABLE
WL > WLC	2-NO. 14 BLACK, 1-NO. 14 RED, 1-NO. 14 WHITE
CTT > WLC	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN
CTT > DLK1	1-NO. 14 BLACK, 1-NO. 14 WHITE, 1-NO. 14 GREEN

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: bmckinzi
Date: Aug 24, 2018
2015 INTERNATIONAL CODES & 2017 NEC

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

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

SHEET TITLE: ELECTRICAL LAYOUT
MODALITY TYPE: OPTIMA NM/CT 640

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ELECTRICAL WIRING. DETAILS TO CONFORM TO LOCAL CODES AND STANDARDS. 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:
MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
M105087	00A

DATE: 15.Jun.18
DRAWN BY: KMS
CHECKED BY: CPC
GON NO: 4651114
GON DT: 05.Jun.18

REVISION HISTORY:

SHEET
E1

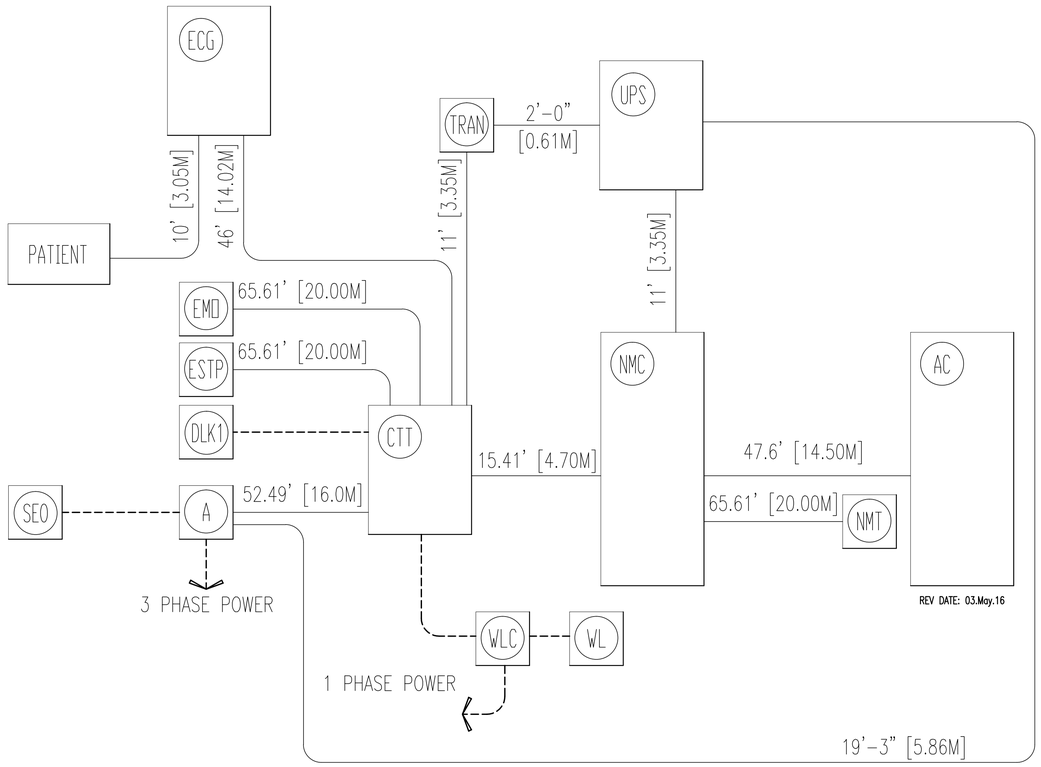
This drawing is based on Sketch No.: NUC-M090228-00C.dwg
RQ – DC-59347 PIM R3

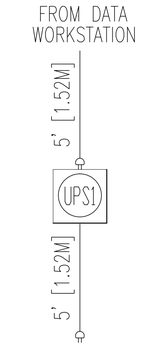
RSN: *1312470*
Permit #: *2018-1509154-LT*

INTERCONNECT DIAGRAM

THIS SHEET OF DRAWINGS HAS NOT BEEN REVIEWED FOR CODE COMPLIANCE.

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





POWER SPECIFICATIONS

OPTIMA NM/CT 640

(REV. DATE 19.Nov.15)

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) MOMENTARY	CURRENT (AMPS) CONTINUOUS	MINIMUM STANDARD OVERCURRENT PROTECTION
380	342–418	28	16	30–A
400	360–440	28	16	30–A
420	378–462	26	15	28–A
440	396–484	25	14	27–A
460	414–506	24	13	26–A
480	432–528	23	12	25–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 = 10 KVA

TABLE B MAXIMUM MOMENTARY POWER DEMAND.

DEMAND	OPTIMA NM/CT 640
kVa *	19
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 24 KVA, WITH 2.4% RATED REGULATION AT UNITY POWER FACTOR. RESULTANT MAXIMUM ALLOWABLE FEEDER REGULATION IS 3.4%

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.

GE CAT. NO. GEX640NM25A480V

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 Management – Design Center
Wisconsin
Milwaukee,

SHEET TITLE: ELECTRICAL SPECIFICATIONS
MODALITY TYPE: OPTIMA NM/CT 640

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED PIPING, DUCTWORK, ELECTRICAL AND MECHANICAL 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 CONSTRUCTION PURPOSES UNLESS APPROVED BY THE COMPANY. THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
M105087	00A

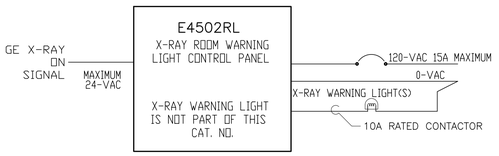
DATE: 15.Jun.18
DRAWN BY: KMS
CHECKED BY: CPC
GON NO: 4651114
GON DT: 05.Jun.18

REVISION HISTORY:

SHEET
E2

RQ – DC–59347 PIM R3 This drawing is based on Sketch No.: NUC–M090228–00C.dwg

ELECTRICAL DETAIL — WARNING LIGHT DIAGRAM — ELEC-72
REV. DATE: 05/14/09

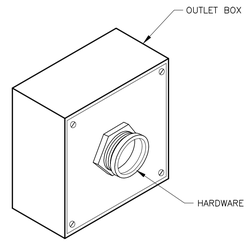


UNLESS SPECIFIED ON SHEET A1 AS BEING INCLUDED ON EQUIPMENT ORDER, ALL ITEMS ILLUSTRATED ARE TO BE FURNISHED AND INSTALLED BY CUSTOMER'S CONTRACTOR

DRAWING NOT TO SCALE

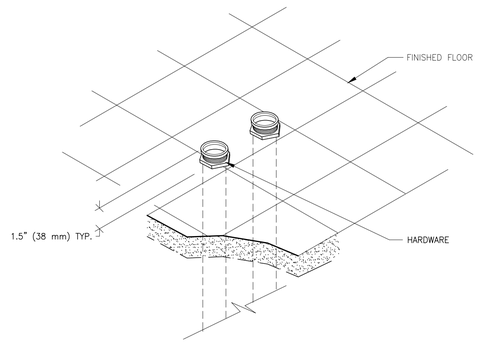
ELECTRICAL DETAIL — BOX WITH COVERPLATE (TYPICAL) — ELEC-8
REV. DATE: 09/30/94

RSN: *1312470*
Permit #: *2018-1509154-LT*



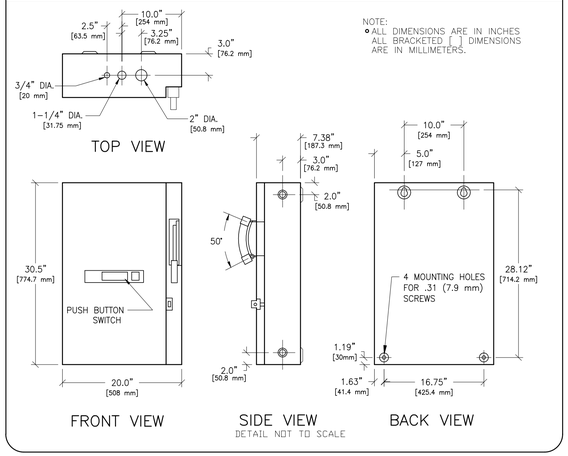
DETAIL NOT TO SCALE

ELECTRICAL DETAIL — CONDUITS THRU-FLOOR (TYPICAL) — ELEC-9
REV. DATE: 08/08/94



DETAIL NOT TO SCALE

ELECTRICAL DETAIL — MAIN DISCONNECT — ELEC-35



DETAIL NOT TO SCALE

ELECTRICAL DETAIL — EMERGENCY OFF BUTTON — ELEC-16
REV. DATE: 05/14/09

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: 17.Jun.16

DETAIL NOT TO SCALE

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

THIS SHEET OF DRAWINGS HAS NOT BEEN REVIEWED FOR CODE COMPLIANCE.

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

This drawing is based on Sketch No.: NUC-M090228-00C.dwg
PIM R3
RQ - DC-59347

GE Healthcare
Healthcare Project Management – Design Center
Wisconsin
Milwaukee,

SHEET TITLE: ELECTRICAL DETAILS
MODALITY TYPE: OPTIMA NM/CT 640

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ELECTRICAL WIRING AS REQUIRED FOR PROPER EQUIPMENT OPERATION. THIS IS NOT A CONSTRUCTION DRAWING. 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.

PROJECT TITLE:
MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
M105087	00A

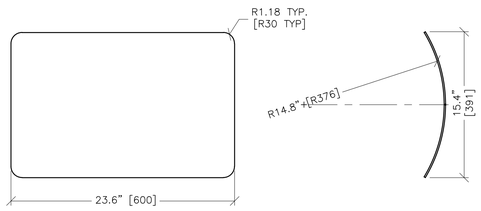
DATE: 15.Jun.18
DRAWN BY: KMS
CHECKED BY: CPC
GON NO: 4651114
GON DT: 05.Jun.18

REVISION HISTORY:

SHEET
E3

EQUIPMENT DETAIL
TABLE EXTENDER – 615/630/670

DB81059
REV. DATE: 23.JAN.12

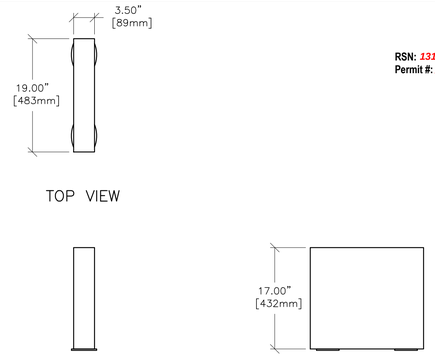


FRONT VIEW SIDE VIEW

DETAIL NOT TO SCALE

EQUIPMENT DETAIL
UNINTERRUPTIBLE POWER SUPPLY (UPS)

R45-04AA
REV. DATE: 09/11/01



TOP VIEW

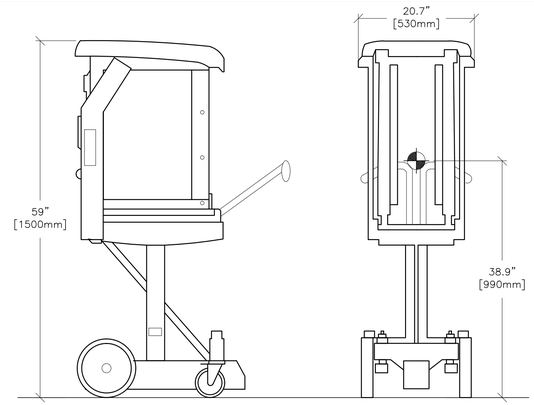
FRONT VIEW SIDE VIEW

RSN: *1312470*
Permit #: *2018-1509154-LT*

DETAIL NOT TO SCALE

EQUIPMENT DETAIL
OPTIMA NM/CT 640 COLLIMATOR CART

B640C
REV. DATE: 01.Jun.2012

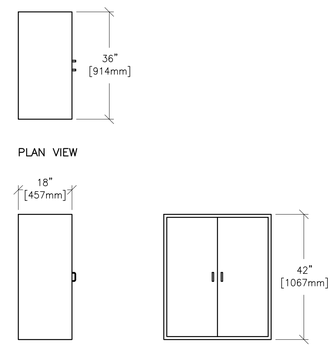


SIDE VIEW FRONT VIEW

DETAIL NOT TO SCALE

EQUIPMENT DETAIL
TYPICAL STORAGE CABINET

M33005
REV. DATE: 02/26/09



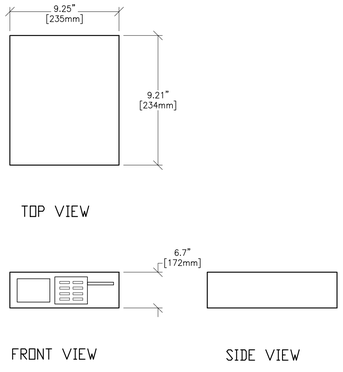
PLAN VIEW

SIDE VIEW FRONT VIEW

DETAIL NOT TO SCALE

EQUIPMENT DETAIL
R-WAVE TRIGGER (3150b/3000)

H2505EG
REV. DATE: 17.JUN.15



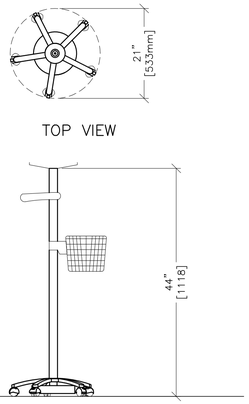
TOP VIEW

FRONT VIEW SIDE VIEW

DETAIL NOT TO SCALE

EQUIPMENT DETAIL
R-WAVE MOBILE CART

B4305R
REV. DATE: 16.FEB.12



TOP VIEW

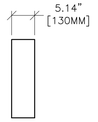
SIDE VIEW

DETAIL NOT TO SCALE

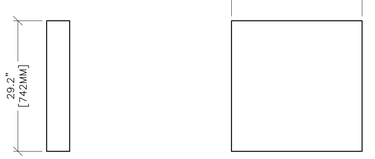
EQUIPMENT DETAIL
6KVA UPS

B640M
REV. DATE: 16.OCT.2012

NOTE:
- INDICATES AIR FLOW
- INDICATES CENTER OF GRAVITY



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



PLAN VIEW

FRONT VIEW SIDE VIEW

EQUIPMENT DETAIL
TRANFORMER FOR 6KVA UPS

B640N
REV. DATE: 16.OCT.2012

NOTE:
- INDICATES AIR FLOW
- INDICATES CENTER OF GRAVITY

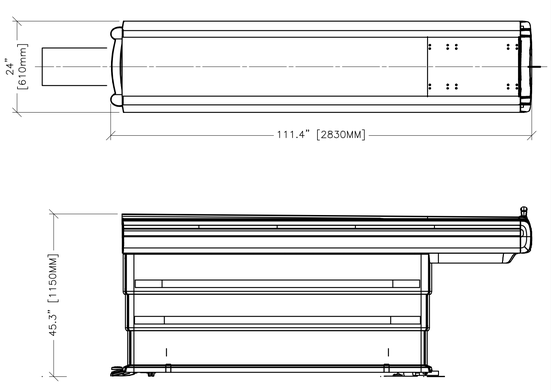
PLAN VIEW



FRONT VIEW SIDE VIEW

EQUIPMENT DETAIL
OPTIMA NM/CT 640 TABLE

B640A
REV. DATE: 01.Jun.2012

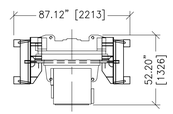


DETAIL NOT TO SCALE

EQUIPMENT DETAIL
GAMMA CAMERA GANTRY DELIVERY

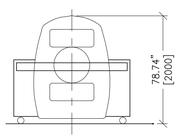
B640B
REV. DATE: 01.JUN.2012

THE CUSTOMER MUST :
- PROVIDE AN AREA, ADJACENT TO THE SUITE, FOR DELIVERY AND UNLOADING OF THE GEMS EQUIPMENT.
- ENSURE THAT THE DIMENSIONS OF ALL DOORS, CORRIDORS, CEILING HEIGHTS, ARE SUFFICIENT TO ACCOMMODATE THE MOVEMENT OF GEMS EQUIPMENT FROM THE DELIVERY AREA TO THE SPECIFIC ROOMS OF THE SITE.
- ENSURE THAT THE ACCESS ROUTE WILL ACCOMMODATE THE WEIGHTS OF THE EQUIPMENT AND ANY TRANSPORTATION, LIFTING AND RIGGING EQUIPMENT,
- IF THE PARKING AND DOCK FACILITIES ARE ON PROPERTY WICH DOES NOT BELONG TO THE CUSTOMER, ENSURE THAT ALL NECESSARY STEPS HAVE BEEN TAKEN TO ENSURE THEIR TEMPORARY USE BY GEMS.



CAUTION

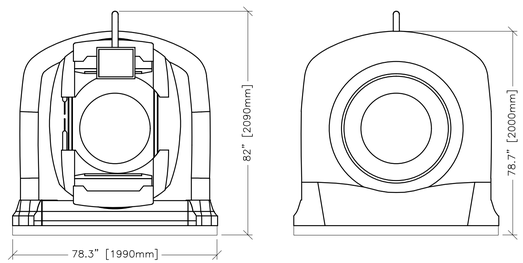
GAMMA CAMERA DELIVERY NEED 1400 MM MINIMUM OPENING



THE GANTRY IS SHIPPED ON A DOLLY EQUIPPED WITH ELEVATING CASTERS.

EQUIPMENT DETAIL
OPTIMA NM/CT 640 GANTRY

B640D
REV. DATE: 01.Jun.2012

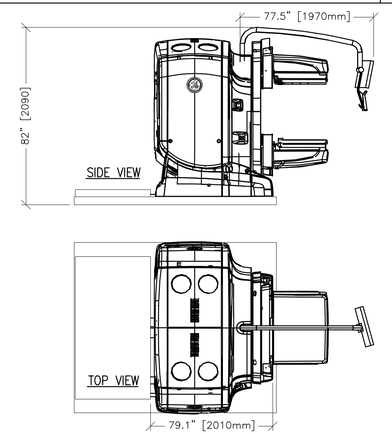


FRONT VIEW REAR VIEW

DETAIL NOT TO SCALE

EQUIPMENT DETAIL
OPTIMA NM/CT 640 GANTRY

B640E
REV. DATE: 03.May.16



SIDE VIEW

TOP VIEW

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 Management – Design Center
Wisconsin
Milwaukee,

SHEET TITLE: EQUIPMENT DETAILS
MODALITY TYPE: OPTIMA NM/CT 640

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ELECTRICAL AND MECHANICAL REQUIREMENTS. DETAILS ARE SHOWN AS A GUIDE ONLY. 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 COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
MEDICAL CENTER OF AURORA
AURORA, COLORADO

PROJECT	REVISION
M105087	00A

DATE: 15.Jun.18
DRAWN BY: KMS
CHECKED BY: CPC
GON NO: 4651114
GON DT: 05.Jun.18

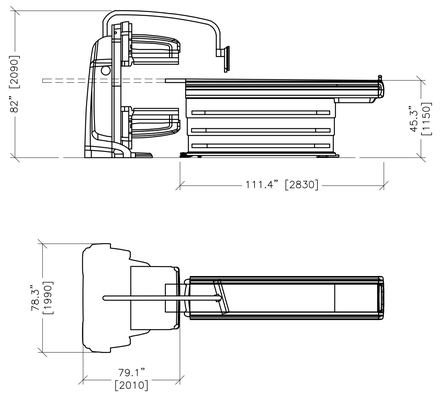
REVISION HISTORY:

SHEET
D1

RQ – DC-59347 PIM R3 This drawing is based on Sketch No.: NUC-M090228-00C.dwg

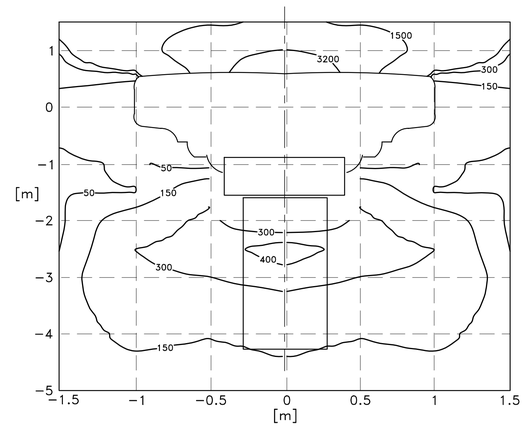
RSN: 1312470
Permit #: 2018-1509154-LT

EQUIPMENT DETAIL — OPTIMA NM/CT 640 GANTRY AND TABLE — B640F
REV. DATE: 22.SEP.11

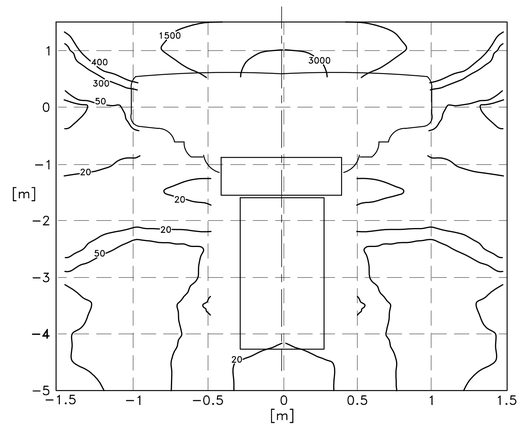


DETAIL NOT TO SCALE

EQUIPMENT DETAIL — CT TYPICAL SCATTER SURVEY AT 50cm BELOW ISOCENTER — B640G
REV. DATE: 07.Aug.2013

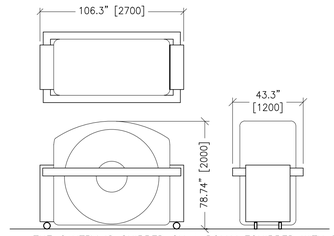


EQUIPMENT DETAIL — CT TYPICAL SCATTER SURVEY AT 50cm ABOVE ISOCENTER — B640H
REV. DATE: 07.Aug.2013



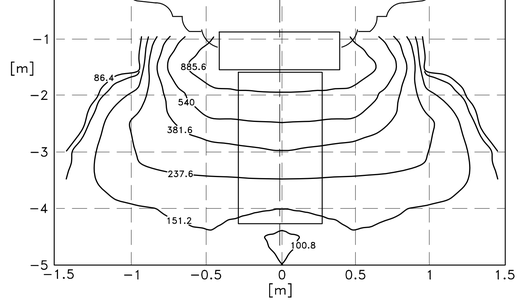
EQUIPMENT DETAIL — CT GANTRY DELIVERY — B640K
REV. DATE: 01.Jun.2012

THE CUSTOMER MUST:
- PROVIDE AN AREA, ADJACENT TO THE SUITE, FOR DELIVERY AND UNLOADING OF THE GEMS EQUIPMENT.
- ENSURE THAT THE DIMENSIONS OF ALL DOORS, CORRIDORS, CEILING HEIGHTS, ARE SUFFICIENT TO ACCOMMODATE THE MOVEMENT OF GEMS EQUIPMENT FROM THE DELIVERY AREA TO THE SPECIFIC ROOMS OF THE SITE.
- ENSURE THAT THE ACCESS ROUTE WILL ACCOMMODATE THE WEIGHTS OF THE EQUIPMENT AND ANY TRANSPORTATION, LIFTING AND RIGGING EQUIPMENT,
- IF THE PARKING AND DOCK FACILITIES ARE ON PROPERTY WICH DOES NOT BELONG TO THE CUSTOMER, ENSURE THAT ALL NECESSARY STEPS HAVE BEEN TAKEN TO ENSURE THEIR TEMPORARY USE BY GEMS.

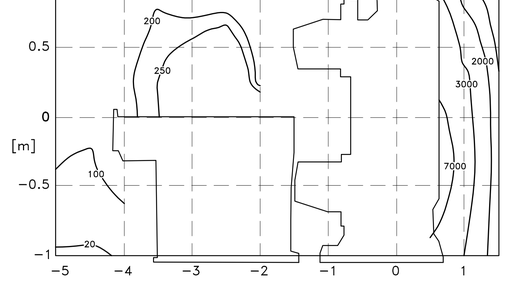


THE GANTRY IS SHIPPED ON A DOLLY EQUIPPED WITH ELEVATING CASTERS (NORMAL SHIPPING CONFIGURATION).

EQUIPMENT DETAIL — CT TYPICAL SCATTER SURVEY AT ISOCENTER — B640P
REV. DATE: 09.Mar.2015



EQUIPMENT DETAIL — CT TYPICAL SCATTER SURVEY ELEVATION — B640Q
REV. DATE: 07.Aug.2013



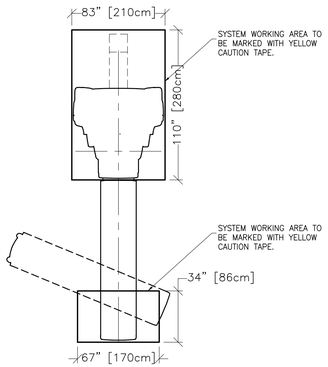
EQUIPMENT DETAIL — OPTIMA NM/CT 640 SYSTEM WORKING AREA — B0577-
REV. DATE: 10.JUN.13

CAUTION
THE SYSTEM WORKING AREA IS A "CAUTION AREA" INSIDE WHICH ONLY AUTHORIZED PERSONNEL ARE PERMITTED ACCESS. NO UNAUTHORIZED PERSONS ARE ALLOWED INSIDE THIS AREA.

THE FLOOR CLEARANCE AREA SHOULD BE CLEARLY MARKED OFF AROUND THE CAMERA TO PREVENT OBSTACLES (FOR EXAMPLE WHEEL CHAIRS) FROM GETTING TOO CLOSE AND COLLIDING WITH THE SYSTEM DURING ITS AUTOMATIC OPERATION.

NO ITEMS OF ANY KIND MAY BE PRESENT WITHIN THIS AREA DURING THE AUTOMATIC OPERATION OF THE SYSTEM.

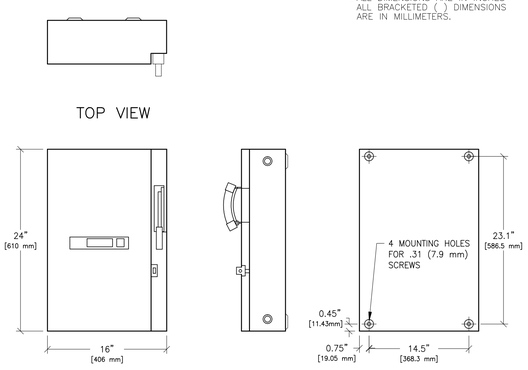
A MORE DECORATIVE FLOORING DESIGN MAY BE USED IN LIEU OF YELLOW CAUTION TAPE. HOWEVER, FINAL FLOORING MUST MEET FLOOR SPECIFICATIONS AS DESIGNATED IN THE PREINSTALLATION MANUAL.



NOTE:
- ALL DIMENSIONS IN INCHES
- BRACKETED DIMENSIONS [] EQUAL MILLIMETERS

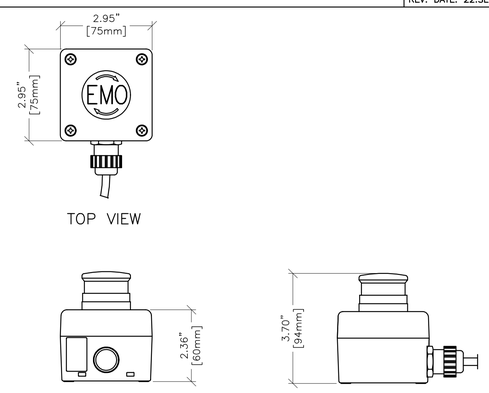
EQUIPMENT DETAIL — MAIN LINE CONTACTOR – OPTIONAL — R45-02AB
REV. DATE: 29.APR.16

NOTE:
- ALL DIMENSIONS ARE IN INCHES ALL BRACKETED [ ] DIMENSIONS ARE IN MILLIMETERS.



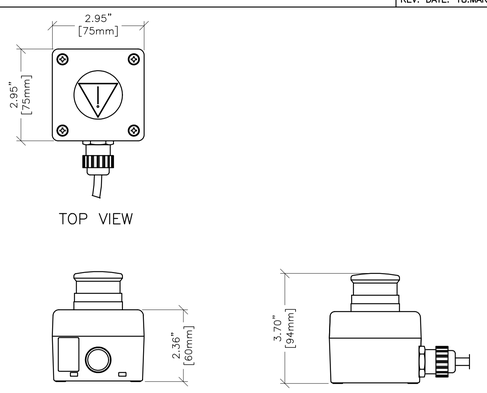
DETAIL NOT TO SCALE

EQUIPMENT DETAIL — EMO PUSHBUTTON — B81058
REV. DATE: 22.SEP.11



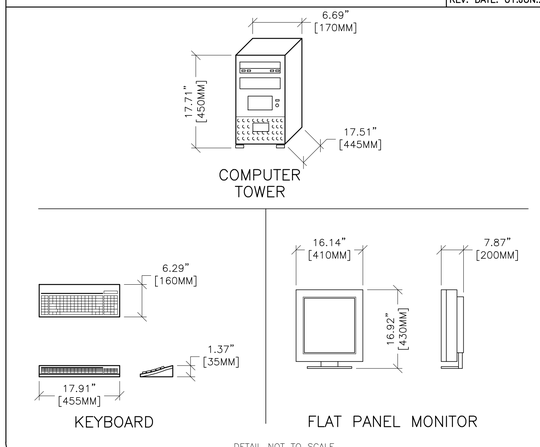
DETAIL NOT TO SCALE

EQUIPMENT DETAIL — E-STOP PUSHBUTTON — B81061
REV. DATE: 18.MAR.13



DETAIL NOT TO SCALE

EQUIPMENT DETAIL — OPTIMA NM/CT 640 AQUISITION WORKSTATION — B640J
REV. DATE: 01.JUN.2012



DETAIL NOT TO SCALE

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

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

GE Healthcare
Healthcare Project Management – Design Center
Wisconsin
Milwaukee,

SHEET TITLE: EQUIPMENT DETAILS
MODALITY TYPE: OPTIMA NM/CT 640

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND SERVICES AND IS BASED ON INFORMATION AVAILABLE AT THE TIME OF PREPARATION. 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 COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
MEDICAL CENTER OF AURORA
AURORA, COLORADO

This drawing is based on Sketch No.: NUC-M090228-00C.dwg
PIM R3
RQ – DC-59347

PROJECT	REVISION
M105087	00A

DATE: 15.Jun.18
DRAWN BY: KMS
CHECKED BY: CPC
GON NO: 4651114
GON DT: 05.Jun.18

REVISION HISTORY:

SHEET
D2

City of Aurora Public Works Department

RSN: *1312470*
Permit #: *2018-1509154-LT*

ACKNOWLEDGEMENT OF SPECIAL INSPECTIONS

Building Division • 15151 E. Alameda Parkway, Ste. 2400 • Aurora, CO 80012 •
303.739.7420 • Email: permitcounter@auroragov.org

Project Address: 1501 S. Potomac, Aurora, CO 80012		
Project Title: Nuclear Medicine Equipment Upgrade		
Inspection Agency: Kumar and Associates, Inc	Phone: 303.742.9700	Fax
Agency Contact Person: Dana Cotter	Phone: 303.742.9700	Fax
Project Owner: Medical Center of Aurora	Phone: 303.873.4895	Fax
Staff Person Reviewing Submittal		Date
Comments		

A pre-construction meeting is recommended for every project whose elements are subject to special inspections. This meeting can take place at any time either here within the City building or on the job site.
Check Required Special Inspections - Per International Building Code, Section 1704:

- ☐ Structural Steel (1705.2)
- ☒ Structural Concrete and Reinforcing Steel (1705.3)
- ☐ Anchor Bolts in Concrete (1705.3)
- ☐ Prestressed Concrete and PT tendons (1705.3)
- ☐ Post-installed Anchors in Concrete (1705.3)
- ☐ Shotcrete Concrete Placement (1705.3)
- ☐ Masonry (1705.4)
- ☐ Structural Wood (1705.5)
- ☐ Soils (1705.6)
- ☐ Driven Deep Foundations (1705.7)
- ☐ Cast-in-place Deep Foundations (1705.8)
- ☐ Helical Pile Foundations (1705.9)
- ☐ Sprayed Fire-Resistant Materials (1705.14)
- ☐ Mastic and Intumescent Coatings (1705.15)
- ☐ Exterior Insulation and Finish System (1705.16)
- ☐ Fire-resistant Penetrations and Joints (1705.17)
- ☐ Smoke Control (1705.18)
- ☐ Other inspections as required by the Design Professional or the Building Official (1705.1.1).

In accordance to Section 1704 of the International Building Code (IBC), the owner or the owner's authorized agent, other than the contractor, shall employ one or more approved agencies to provide special inspections and tests during construction on the types of work specified in section 1705 and identify the approved agencies to the building official.

A. Registered Design Professional Responsibilities

1. Prepare a Statement of Special Inspections in accordance with IBC section 1704.3.1. The statement of special inspections shall identify the materials, systems, components and work required to have special inspections or tests. Note whether the special inspections are continuous or periodic. May be provided on the structural drawings or in document form. NOTE: This form does not take the place of the required statement of special inspections.
2. Review the special inspection reports and provide corrective action for work that may not conform to the approved plans. Provide this information to the Building Division.

B. Contractor's Responsibilities

1. The approved plans shall be readily accessible at the job site.
2. The contractor shall provide reasonable access to all work requiring special inspection.
3. The contractor is also responsible for retaining at the job site all special inspection records submitted by the special inspector, and providing these records for review by the Building Division's inspector upon request.

C. Duties of the Special Inspector

1. Provide written documentation to the Building Division demonstrating the competence and relevant experience or training of the special inspectors who perform the special inspections and tests during construction. Discrepancies shall be brought to the immediate attention of the contractor for correction. If any item is not corrected the special inspector shall notify both the engineer of record and the Building Division.
2. A final report documenting required special inspections and tests, and correction of any discrepancies noted in the inspections or tests, shall be submitted to the Building Division prior to issuance of a certificate of occupancy.

D. Jurisdiction

1. The jurisdiction will review the implementation of Structural Tests and Special Inspection requirements.
2. The Building Division will only issue a Certificate of Occupancy after all special inspection reports and the final special inspection report, have been submitted and accepted.

ACKNOWLEDGMENTS

I have read and understand my responsibilities regarding special inspections.

Project Owner:_____ Date:_____

Or

Owner's Authorized Agent:_____ Date: 08/24/2018

COMMENTS OR CONCERNS: We are always looking for ways to improve the website and our handouts for the Building Division. Please email permitcounter@auroragov.org with your comments and suggestions.

"Colorado's only IAS Accredited Building Department"