project start date: 30 March 2018
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Cardiovascular and Thoracic Surgeons

Abbreviations

Ø	diameter
℄	centerline
A	ampere
A/C	air conditioning
A/V	audio/ visual
ADA	Americans with Disabilities Act
AFF	above finished floor
alt.	alternate
amp.	ampere
approx.	approximately
C.	conduit
CKT.	circuit
clg.	ceiling
clr.	clear
const.	construction
d.	depth/ deep
dia.	diameter
dim.	dimension
DN	down
DW	dishwasher
E	existing *(device or fixture to remain)*
Elev.	elevator
eq.	equal
EWC	electric water cooler
EWH	electric water heater
F.D.	floor drain
F.E.	fire extinguisher
F/A	fire alarm
FEC	fire extinguisher cabinet
FHC	fire hose connection
fin.	finish *or* finished
ga.	gauge
gyp.	gypsum board
hd.	height/ high
H.C.	hollow core
H.M.	hollow metal
HVAC	heating, ventilating, air conditioning
I.F.	inside face
I.T.	information technology
Jan.	janitor(s')/ janitorial
J-Box	junction box
l.	length/ long
mfd.	manufactured
mil	millimeter
min.	*minimum or minute (per context)*
mm	millimeter
mw	microwave
N	new *(device or fixture)*
NIC	not in contract
nom.	nominal
NTS	not to scale
o.c.	on center
O.H.	opposite hand
Occ.	occupants
oz.	ounces
P.Lam.	plastic laminate
R	relocated *(device or fixture)*
R.O.	rough opening
Re.	refer to:
reqd.	required
R/A	return air
RM.	room
RSF	Rentable Square Feet
S.C.	solid core
S.M.	surface mounted
S.Stl.	stainless steel
S/A	supply air
SDT	static dissipative tile
SF	square feet
sim.	similar
sq.yd.	square yard
std.	standard
T.O.	throughout
TBD	to be determined
th.	thickness/ thick
typ.	typical
U.L.	Underwriters Laboratory
UNO	unless noted otherwise
USF	Usable Square Feet
V	volt
VCT	vinyl composition tile
VIF	verify in field
w.	width/ wide
W.S.	work station
w/	with
WC	wallcovering
WF	water fountain

Reference Symbols

- Keyed Note
- Center Line
- Detail Reference / Detail Number Sheet Reference
- Section Reference / Section Number Sheet Reference
- Elevation Reference / Elevation Number Sheet Reference
- Door Reference Tag, refer to Door Schedule
- PL1 — Plastic Laminate Reference, Refer to Finish Treatment Schedule
- P1 — Wall Treatment Reference, Refer to Finish Treatment Schedule
- C1 / RB1 — Floor Treatments Reference, Refer to Finish Treatment Schedule

General Notes

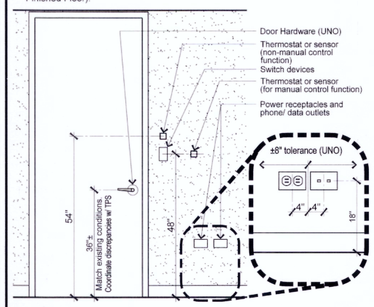
1. **GENERAL STANDARDS**: All work defined herein shall be constructed in accordance with the approved drawings and specifications and shall be in compliance with all applicable codes, ordinances, and regulations. Work performed in the shop or on-site shall be performed by mechanics, craftsmen and workers skilled and experienced in the fabrication and installation of the work involved. The work shall be performed in accordance with the best established practices of the industry standard for the trade involved.
2. **FEES AND PERMITS**: The General Contractor shall obtain all licenses and permits required by the jurisdiction and/or its agencies, not withstanding licenses and permits that may be required of respective subcontractors. The cost of said licenses and permits shall be incurred by that contractor responsible for the procurement of same.
3. **DRAWINGS AND SPECIFICATIONS**: The General Contractor shall maintain a complete and current set of project documents, drawings and specifications on the job site at all times and shall include all approved shop drawings and submittals. The General Contractor shall be responsible for distribution of adequate copies of all drawings and specifications to all applicable trades. Upon completion of the work, the General Contractor shall submit one complete set of red-lined drawings to TPS indicating any and all changes, omissions, or modifications made.
4. **ENGINEERED DRAWINGS**: Refer to structural, mechanical, electrical and plumbing drawings (when provided) for detailed design of the structural, mechanical, electrical, and plumbing systems. Portions of this work may be shown on the architectural drawings for reference to, and in coordination with, other work.
   - 4.1. When indicated on the drawings, the General Contractor shall provide engineering drawings on a design/build basis for mechanical systems, electrical systems and plumbing. Provide one copy of all drawings to TPS for review prior to construction.
   - 4.2. The General Contractor is responsible for required permits and approvals necessary for the work as described above. Precedence: the architectural drawings shall precede the engineered drawings (if provided) relative to device and fixture locations.
5. **OMISSIONS AND DISCREPANCIES**: The General Contractor shall field verify all conditions and dimensions shown on the drawings, and shall notify TPS of any discrepancies, omissions or conflicts prior to commencing with construction.
6. **MATERIALS**: Unless otherwise specified, all materials shall be new, unused, and in compliance with the specifications set forth in these documents. All materials used throughout the project shall be of the same brand name and quality for consistency. All materials must meet the ASTM and ANSI standards and be in compliance with all applicable codes, ordinances and regulations. Unless authorized in writing by the owner or its representative, no existing fixture, device or component shall be removed from adjacent areas or buildings to facilitate this project.
7. **MATERIAL INVENTORY**: Upon award of the construction contract, and when building materials are stocked and made available for the project, coordinate with the Building Representative for purchase of materials. All materials shall be bid as if new. Do not assume use of materials from building stock.
8. **SUBMITTALS/DEVIATIONS**: No substitutions, variations and deviations from these documents shall be permitted without prior approval of TPS, the Building and/or Tenant's Representative. Application for any substitutions and/or variations shall be submitted to TPS by the General Contractor for approval. Application shall be made in writing accompanied with product specifications and/or samples. Five complete sets of submittals are required.
9. **SHOP DRAWINGS**: When requested on the drawings, the General Contractor shall prepare, review, approve and submit shop drawings to TPS. The General Contractor shall check and coordinate all product data and samples and verify all materials, field measurements and related field construction criteria contained in such submittal conforms to the requirements of the work, and the contract documents. Five complete sets of submittals are required.
10. **SUBCONTRACTORS**: The General Contractor shall coordinate and review the work of all subcontractors, trades and suppliers, and to make known all requirements of the contract documents, and to assure that all parties are fully aware of the requirements, regardless of whether the requirements occur in the contract documents, which might affect the work of that party. Subcontractors shall conform to the following:
    - 10.1. Subcontractors shall coordinate all installations, schedules, locations, decisions, sizes, and resolve all conflicts and interferences of their trade with other trades.
    - 10.2. Subcontractors shall be responsible for coordinating routes of water, sprinkler, mechanical and electrical services.
    - 10.3. Light fixtures/ fittings, diffusers/ ducts, sprinkler heads, etc. as depicted on the drawings, both above and below the ceiling, which conflict with any existing services shall be reported immediately when it becomes apparent that a conflict will prevail. All costs incurred by the General Contractor or other subcontractors for failure to report conflicts immediately shall be borne by the contractor.
11. **TENANT VENDORS**: The General Contractor shall be responsible for coordinating with the Tenant and the Tenant's vendors for scheduling and providing access to the space for the Tenant's movable partition systems, communications/ data processing systems, security systems, and audio/ video systems.
12. **INSPECTIONS**: the General Contractor shall permit and facilitate inspection, by the owner and the architect or their representatives, during the course of construction.
13. **TENANT RESPONSIBILITIES**: Unless specified otherwise in the contract documents, the following items are not a part of these drawings and if so desired shall be provided by the Tenant.
    - 13.1. Furnishings, files and accessories
    - 13.2. Portable or movable office partitions
    - 13.3. Racks, bins, prefabricated shelving systems
    - 13.4. Coffee makers, microwaves, refrigerators, vending machines
    - 13.5. Copy/fax equipment and computer equipment
    - 13.6. Security systems, sound systems, intercom systems
    - 13.7. Telephone equipment including wiring/cabling
    - 13.8. Clocks, time clocks
    - 13.9. Connection of all equipment, furnishings and panels
    - 13.10. Moving or relocation of Tenant's furnishings, fixtures, and equipment
    - 13.11. Schedule and coordination of Tenant vendors
14. **PROTECTION**: The General Contractor shall protect the work, adjacent space/property, common areas, public utilities, and the public, and shall be responsible for any damage or injury due to neglect. Protection shall include but not be limited to the following:
    - 14.1. Draw window coverings and wrap or bag with plastic for dust protection.
    - 14.2. Provide plywood or masonite floor protection with tape sealed joints completely along routes used for delivery and removal of materials.
    - 14.3. Provide and/or use protective pads at designated freight elevator cab walls and around openings.
    - 14.4. When necessary, x-ray the floor slab to confirm locations of objects embedded in the concrete prior to making any penetrations in the slab.
15. **DAMAGES**: Should the General Contractor or any associated subcontractor cause damage to any adjacent fixture or structure while completing or cleaning current construction, that contractor or subcontractor shall be responsible for repair or replacement of said damaged fixture or structure.
16. **INSURANCE**: The General Contractor shall purchase and maintain certifications of insurance with respect to workers compensation, public liability and property damage for the limits as required by law. The certificates shall name the client and Tenant Planning Services, Inc. as additional insured. The General Contractor and subcontractors performing work on-site shall conform to the Landlord's insurance requirements.
17. **GUARANTEE/WARRANTY**: The General Contractor shall enforce a specific and unconditional warranty on all materials, workmanship, equipment, fixtures and sub-assemblies subject to normal use and maintenance for a period not to exceed one (1) year from date of substantial completion. Said warranty shall not be exclusive of implied or specific warranties enforced by manufacturers and/or suppliers of aforementioned materials, equipment, fixtures and/or sub-assemblies.
18. **SECURITY**: The General Contractor shall be responsible for securing and controlling access to the job site during construction and for disconnecting power and lighting when not in use.
19. **INTERRUPTION OF SERVICES**: All work requiring dangerous, toxic, or noisy operations and installations which might affect the operation of the existing tenants shall be performed during non-business hours. Coordinate with Building Management.
20. **HAZARDOUS MATERIALS**: TPS has no knowledge of, and shall not be held liable for, any asbestos or other hazardous materials on the project site. Prior to commencing with the work on-site, it shall be the responsibility of the General Contractor to inspect and make a good faith effort to identify the presence of asbestos, toxic or other hazardous materials. Should hazardous materials be discovered at any time before or during construction, stop the work immediately and report to the Building Management for further instructions before proceeding.
21. **BUILDING RULES AND REGULATIONS**: The General Contractor shall be responsible for consulting with the Building Representative for rules and regulations governing the building and pertaining to deliveries, removal of materials and debris, use of building facilities, noise restrictions, protection of existing conditions, hours of operation, building access, etc.
22. **CLEANING**: The General Contractor shall clean the job site and adjoining areas during construction and upon completion. Cleaning includes, but is not limited to, vacuuming carpets, wet mopping floor tile and other resilient flooring; cleaning all glass, including interior side of exterior glazing; dusting and wiping clean all lint and soiled areas on doors, millwork, window coverings, baseboard, etc.; removing all construction debris, scraps, materials and equipment; and water seal all marble, granite and ceramic tile and grout.
23. **FIRE RESISTIVE STANDARDS**: Conform to the following:
    - 23.1. Materials and assemblies required to be fire resistive shall bear a label affixed to the product indicating fire resistive rating and testing agency with approved test certification number.
    - 23.2. All blocking and nailer strips used in connection with fire resistive partitions shall be fire retardant wood as defined by the Building Code.
    - 23.3. All concealed wood shall be treated with an approved fire retardant.
    - 23.4. Fire ratings of existing materials and/or systems which may become damaged or modified due to the work shall be maintained with a fire rating equal to or greater than the existing rating.
    - 23.5. All pipe and conduit penetrations in fire rated partitions and floors/ceilings shall be sealed in accordance with a U.L. listed "fire stop" compatible with the material and fire rating required.
    - 23.6. Flame-spread: minimum ratings for flame spread shall be as follows:
      - 23.6.1. Enclosed vertical exit ways: Class I (0-25 F.S.I.)
      - 23.6.2. Other exit ways: Class II (26-75 F.S.I.)
      - 23.6.3. Rooms or areas: Class III (76-200 F.S.I.)
24. **ARCHITECTURAL WOODWORK**: Provide architectural woodwork as specified on the drawings. The "quality standards" of the architectural woodwork institute shall apply and hereby made a part of this document. All prefabricated work shall be economy grade. All other work shall be custom grade as defined by the quality standards of the AWI, unless noted otherwise.
25. **SURFACE PREPARATION**: Inspect existing conditions of all floor and wall surfaces for voids, holes, cracks, and other damages and make repairs. Grind and/or fill imperfections, fill holes, cracks, and other damages prior to installation. **The General Contractor shall provide budget for floor prep as required. The General Contractor shall provide RH moisture testing for any concrete locations less than one year old and for all slab on grade (regardless of age) locations.**
26. **CLEARANCES**: The General Contractor shall verify ceiling height and clearances above ceiling to the underside of structure above for installation of ductwork and diffusers, conduits and junction boxes; fire sprinkler pipes and heads; and light fixtures. All work shall be coordinated by all trades to avoid interference with methods of installation. Notify TPS of conflicts immediately and prior to commencing with construction.
27. **FIRE SPRINKLER SYSTEM**: In buildings equipped with fire sprinkler systems, furnish all labor, materials, fixtures, trim, equipment and services necessary for the installation of a complete and properly functioning fire sprinkler system. All work shall conform to the following:
    - 27.1. Relocate and/or add fire sprinkler heads as required for new conditions as shown on the drawings.
    - 27.2. Rework and/or add to existing pipes, fittings, hangers and support as necessary for new sprinkler head locations.
    - 27.3. Design standards, materials and workmanship shall be compatible with existing conditions.
    - 27.4. Install new sprinkler head locations in the center of the ceiling board or section and symmetrical throughout rooms and open areas.
28. **FIRE EXTINGUISHERS:** Provide portable, wall mounted fire extinguishers every 75' of exit travel distance throughout limit of construction or as required by the local fire department or life safety department. Portable fire extinguishers shall comply with uniform fire code standard 10-1.
29. **PLUMBING SYSTEM**: Furnish all labor, materials, fixtures, trim, equipment and services necessary for the installation of a complete and properly functioning plumbing system. All work shall conform to the following:
    - 29.1. Refer to drawings for specific information pertaining to materials, fixtures, etc. scheduled as new and not contained herein.
    - 29.2. Re-use existing plumbing piping and/or fixtures and components where possible. Inspect and confirm existing conditions are within specifications.
    - 29.3. New materials shall be compatible with existing conditions, where possible.
    - 29.4. Provide fixtures with all anchors, supports, traps and trim, for a complete installation.
    - 29.5. Provide stop valves on all hot and cold water connections to fixtureSF
    - 29.6. Caulk around all fixtures with silicone based caulking compound.
    - 29.7. Install all fixtures level and square with surrounding enclosures.
    - 29.8. Install escutcheons for all pipes exposed to view passing through walls, floors and ceilings.
    - 29.9. Provide templates or cut-outs of fixtures to the millwork subcontractor for cutting of openings.
    - 29.10. All materials and workmanship shall be in compliance with state and local codes and ordinances, and the Americans with Disabilities Act (ADA).
30. **HVAC SYSTEM**: Furnish all labor, materials, fixtures, trim, equipment and services necessary for the installation of a complete and properly functioning HVAC system. All work shall conform to the following:
    - 30.1. Standards: all standards and specifications established in the base building construction documents, or as evidenced in the existing conditions of construction shall govern, unless noted otherwise. All work shall be coordinated with the building maintenance manager. Refer to base building construction documents and specifications and existing conditions of system for equipment or materials not specified on the engineered drawings or contained herein. All materials and workmanship shall be in compliance with ASHRAE and SMACNA, state and local codes and ordinances, and the Americans with Disabilities Act (ADA).
    - 30.2. Repairs and replacement: the contractor shall verify proper operation of existing ductwork for breaks and leaks. In the event that the contractor has observed system failure or defects, notify the Owner's construction manager immediately for further direction. For bid purposes, it shall be assumed that all HVAC equipment and associated ductwork and components are in proper operating condition. Repairs or replacement of materials and workmanship shall be performed as a separate portion of the work.
    - 30.3. Abandoned equipment: all abandoned HVAC equipment and components within the area of construction shall be removed and all duct connections patched, capped and/or sealed.
    - 30.4. Fire dampers shall be installed in all ducts which penetrate fire resistive partitions (one-hour rated and above). Fire dampers shall be 100% free area design.
    - 30.5. Return air plenum: allow for transfer of air above Tenant demising partitions and spaces continuously and unobstructed to the building system return air shaft. Refer to engineered drawings (if provided) and detailed drawings for wall construction and opening size. During construction, the contractor shall place temporary filters over openings to the return air shaft. Remove filters upon completion of construction. Coordinate this work with the building maintenance manager.
    - 30.6. Thermostats: locate thermostats so as not to interfere with the occupants' furnishings and systems, avoiding locations in the middle of walls, in traffic areas, in file/supply rooms, etc.
    - 30.7. Air testing, adjusting, and balancing: adjust and balance terminal units, diffusers, dampers and registers to provide design condition air flow or to the air quantities shown on the drawings (if provided). Balance work shall be performed in accordance with NEBB standards by a certified contractor. Submit a balancing report to TPS. Calibrate and adjust all thermostats.
31. **FIRE/SMOKE ALARM SYSTEMS**: In buildings equipped with fire and/or smoke alarm systems, furnish all labor, materials, fixtures, trim, equipment and services necessary for the installation of a complete and properly functioning fire/smoke alarm system. All work shall conform to the following:
    - 31.1. Relocate and/or add fire alarms, smoke or heat detectors, strobe alarms, pull stations, remote indicator lights and other components of the system as required for new conditions of the space.
    - 31.2. Rework systems to be compatible with existing design standards and conditions.
    - 31.3. Locations and specifications of alarms shall comply with the Americans with Disabilities Act (ADA).
32. **ELECTRICAL SYSTEM**: Furnish all labor, materials, fixtures, trim, equipment and services necessary for the installation of a complete and properly functioning electrical system. All work shall conform to the following:
    - 32.1. Standards: all standards and specifications established in the base building construction documents, or as evidenced in the existing conditions of construction shall govern, unless noted otherwise. All work shall be coordinated with the building maintenance manager. Refer to base building construction documents and specifications and existing conditions of system for equipment or materials not specified on the engineered drawings or contained herein.
    - 32.2. All materials and workmanship shall be in compliance with the national electric code (NEC), state and local codes and ordinances, and the Americans with Disabilities Act (ADA).
    - 32.3. Repairs and replacement: the contractor shall verify proper operation of existing panels and switch-gear. In the event that the contractor has observed system failure or defects, notify the Owner's construction manager immediately for further direction. For bid purposes, it shall be assumed that all equipment and associated components are in proper operating condition. Repairs or replacement of materials and workmanship shall be performed as a separate portion of the work.
    - 32.4. Panels: provide new typed panel circuit directory for each panel affected.

Definitions

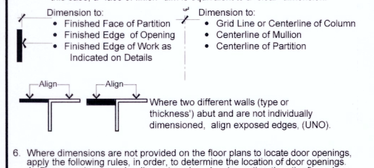
- **Approve**: where used in conjunction with TPS's or its consultant's response to submittals, requests, applications, inquiries, reports and claims by the contractor, the meaning of the term 'approved' will be held to the limitations of TPS's responsibilities and duties as specified in the general conditions and supplementary conditions. In no case will 'approved' by TPS be interpreted as an assurance to the contractor that the requirements of the contract documents have been fulfilled.
- **Furnish**: except as otherwise defined in greater detail, the term 'furnish' is used to mean to supply and deliver to the project site, ready for unloading, unpacking, assembly and installation, etc. as applicable in each instance.
- **Install**: except as otherwise defined in greater detail, the term 'install' is used to describe operations at the project site including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finish, curing protection, cleaning and similar operations, as applicable in each instance.
- **Provide**: except as otherwise defined in greater detail, the term 'provide' means to furnish and install, complete and ready for the intended use as applicable in each instance.
- **Products**: defined as products which must be substantially cut, shaped, worked, mixed, furnished, refined otherwise fabricated, processed, installed or applied to form units of work.
- **Equipment**: defined as products with operational parts, regardless of whether motorized or manually operated, and particularly including connections (wiring, piping, etc.).
- **Typical**: 'typical' or 'typ' means identical for all similar conditions.
- **Similar**: 'similar' or 'sim' means comparable to characteristics for the condition noted. Verify dimensions and orientation on plan.
- **As required**: 'as required' means as required by regulatory requirements, by referenced standards, by existing conditions, by generally accepted construction practice, or by the contract documents.
- **Align**: 'align' means accurately locate finish faces of materials in same plane.
- **Relocate**: means to reuse a particular device, fixture, or item in a new location.
- **Remain**: to continue unchanged.
- **Reused**: to use again especially in a new way or in a new location.

Dimensional Conventions

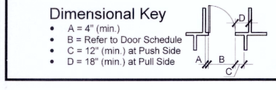
1. Except where directed to place items of the work at the "approximate location shown," do **not** scale drawings for dimensional information. All elements of the drawings **may** not be drawn to exact scale. All dimensions required are shown, or may be derived from those shown on the floor plans, detail plans, elevations, sections, details, schedules, and specifications. See notes on this sheet and symbols on the "Architectural Symbols" drawing for dimensions conventions used on this project.
2. Do not scale drawings; dimensions shall govern, details shall govern over plans and elevations. Large scale plans shall govern over small scale plans. Large scale details shall govern over small scale details. If unable to locate dimensions for any item of work, consult the Architect prior to construction.
3. All heights are dimensioned from top of existing slab unless noted "AFF". (Above Finished Floor).



4. Dimensions are not adjustable, unless noted (+/-), without TPS' written approval.
5. Except where specifically noted to the contrary, all dimensions shown on the architectural drawings conform to the following conventions:
   - A. Dimensions utilizing the "centerline" symbol are measured to:
     - Structural or dimensional grid lines.
     - Centerline of wall or partition assemblies, exclusive of any applied finish having thickness
     - Centerline of door, window, cased opening and window mullion.
   - B. Dimensions typically utilized are to the face of finished wall and are measured to:
     - Face of finished wall
     - Inside edge of finished door opening. Refer to "door schedule" for additional information.
     - Finish faces at the most narrow or constricted points of the section where dimension is shown when the dimension occurs across an open space. In this case, a "face of finish" dim is equivalent to a "clear" dimension.



6. Where dimensions are not provided on the floor plans to locate door openings, apply the following rules, in order, to determine the location of door openings
   - A. Door openings may be dimensioned on drawings other than the floor plans. Refer to the sections, elevations, details, and door schedule notes for additional dimensional information.
   - B. Where the hinge-side of a door is shown adjacent to a wall, or walls, perpendicular to the wall in which the door opening occurs, locate the hinge-side finished edge of the door opening 4 inches from the face (exclusive of any applied finish) of the closest perpendicular wall or partition assembly.



Project Alternates

1. Replace existing millwork at Open Office Area 227 with new
2. Replace existing sheet vinyl floooring in Restrooms 226 & 231 with new floor tile.

Building Proprietary Vendors

NONE

Codes and Regulations

Building Profile

City/ County:	Aurora / Arapahoe
Fire District:	Aurora Fire Rescue
Construction Classification:	Type V-B — IIB-Spk
Building Height / Levels:	Unknown / Three
	Automatic Sprinklers Throughout

Use and Occupancy

Occupant Name:	Cardiovascular and Thoracic Surgeons
Occupant Use:	General Business Office
Occupancy Classification:	Business Group B

Tenant Area

	Total	Existing	Expansion
(approx.) Useable SF:	5,181		

City of AURORA

Applicable Codes

2015 IBC (International Building Code) with Amendments
2015 IPC (International Plumbing Code)
2015 IMC (International Mechanical Code)
2015 IFC (International Fire Code)
2015 IECC (International Energy Conservation Code)
2017 NEC (National Electric Code)

Interpretations

Occupancy Load Analysis

Suite	Function Per Table 1004.1.1	Floor Area (USF)	Floor Area (SF/Occ)	Number of Occupants
200	Business	5,181	÷100 gross =	52

Occupancy Load Analysis

Room Name & Number	Function Per Table 1004.1.1	Floor Area (SF)	Floor Area (SF/Occ)	Number of Occupants
Remainder of Suite	Business	5,181	÷ 100 = (gross)	52
			TOTAL:	52

Means of Egress

	Required	Provided
Egress Width:	min: 68"	144"
Number of Exits:	min: 2	4
Common Path of Travel:	max: 100'	41'
Exit Access Travel Distance	max: 300'	87'

City of Aurora Building Division
Project: *Tenant Improvement*
Address: *1444 S Potomac St, Unit 200*
Occupancy Group: *B*
Construction Type: *IIB-Spk*
RSN: *1319864*
Permit: *18-1524209-LT*

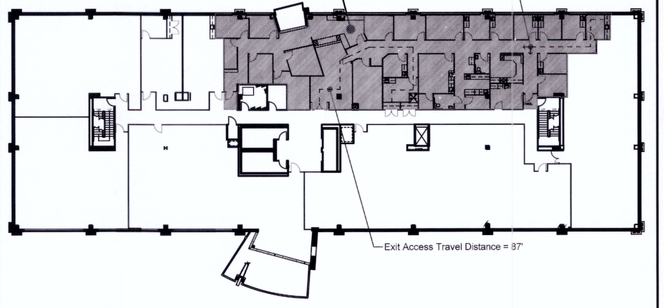
Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation.

SEPARATE FIRE ALARM PERMIT REQUIRED: Due to the proposed work the general contractor is required to obtain the services of a fire alarm contractor to determine if a separate alarm permit is required. If it is determined that the spacing of the fire alarm devices is not in compliance, then a separate fire alarm permit is required. Approval of the documents is required prior to system installation or any request for inspection. A certificate of occupancy or final approval cannot be issued by the Building Division without this fire protection system. **2015 IFC, Section 105.7.6.**

SEPARATE FIRE SPRINKLER PERMIT REQUIRED: Due to the proposed work the general contractor is required to obtain the services of a fire sprinkler contractor to determine if a separate sprinkler permit is required. If it is determined that the spacing of the fire sprinkler heads is not in compliance, then a separate fire sprinkler permit is required. Approval of the documents is required prior to system installation or any request for inspection. A certificate of occupancy or final approval cannot be issued by the Building Division without this fire protection system. **2015 IFC, Section 105.7.1.**

CO Required

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



1 Proximity Plan
Level Two
Not to Scale

Plan North / True North

Project Team

Designer/ Space Planner

Tenant Planning Services
1660 Lincoln Street, Suite 100
Denver, Colorado 80264
Contact: Gene Summers
Phone: 303.861.4800 x108
Fax: 303.861.1621
email: gene@tps.design

Building Representative

CBRE
8390 E Crescent Parkway
Suite 300
Greenwood Village, CO 80111
Contact: Lila Walker
Phone: 720.528.6392
Email: lila.walker@cbre.com

Tenant Representative

Cardiovascular and Thoracic Surgeons
Contact: x
Phone: x
email: x

Mechanical Engineer

Brian Seyferth and Associates
5583 S. Prince St., #B
Littleton, CO 80120
Contact: Claudio Fong
Phone: 303.797.7772
email: claudio@seyferth.com

Electrical Engineer

Corey Electrical Engineering
7822 S. Wheeling St.
Englewood, CO 80112
Contact: Eric McCloskey
Phone: 303-696-1257
email: emccloskey@coreyeng.com

Drawing List

A0	Cover Sheet
D1	Demolition Plan
	Demolition Ceiling Plan
A1.1	Construction Plan
	Standard Partition Sections
A1.2	Door Schedule Plan
	Door Schedule
A2	Reflected Ceiling Plan
	Power and Communications Plan
A3.1	Finish Treatment Plan
	Finish Treatment Schedule
	Millwork Elevations
A3.2	Millwork Elevations
	Section Details
M1.0	Mechanical Plan
P1.0	Plumbing Plan
E0.0	General Notes and Legend
E1.0	Demolition Plan
E2.0	Power Plan
E3.0	Lighting Plan
E4.0	Comcheck

Approvals

☒ Issued For Construction
☐ Preliminary - Not Issued for Construction

Construction Document Approval

Construction work shall not proceed until the Owner and the intended occupant have given approval to these Construction Documents. Approval by these parties shall be interpreted as approval of the drawings for content, scope of work, and all dimensions regarded by either party as being necessary to their operations, use of the space, furnishings, equipment installation, and any agreements between the Owner and the intended occupant.

Construction and/or initiation of construction authorized by the Owner from these Construction Documents, shall be interpreted by the Designer as approval in full of these Construction Documents by both the Owner and intended occupant.

☐ Approved - No Exceptions Taken
☐ Approved As Noted
☐ Approved As Noted - Resubmit
☐ Revise And Resubmit

Signature _____ Date _____

Dates of Record

Project Start Date: 30 March 2018

Issued On	Issued For
30 August 2018	Tenant Review & Approval; and Construction

TPS
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1444 South Potomac
1444 South Potomac
Aurora, CO 80012
Suite 200

Cardiovascular and Thoracic Surgeons

REGISTERED ARCHITECT ROBERT J KLAP B-3282 LICENSED ARCHITECT

Project #	Proj Mgr	Designed by	Drafted by	Checked by
428008.00	GBS	MH	MH	GBS

A0

RSN: 1319864
Permit #: 18-1524209-LT

project start date: 30 March 2018
dwg create date: 8/15/2018 3:48:27 PM
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plt create date: 9/5/2018 9:42:03 AM by MayHer layout tab: D1

1444 South Potomac • Cardiovascular And Thoracic Surgeons

Sheet D1 Plan Notes

1. **Refer to General Notes** for additional requirements.
2. **GENERAL DEMOLITION**: Demolish and remove all partitions, materials, and debris as shown on the drawings or specified otherwise herein. Removal as described shall be accomplished without storing excessive quantities of any material, rubbish, dirt, debris or waste of any kind within this demised area of construction or adjacent areas.
3. **FINISH TREATMENTS** scheduled to be removed are as follows: carpet, resilient flooring, base trim, wall treatments.
4. **DISPOSAL**: All existing equipment, materials and fixtures not scheduled for re-use shall remain the property of the Owner. Coordinate with the Building Representative and comply with all regulations and/or requirements pertaining to removal, salvage and storage of materials demolished as scheduled.
5. **RE-USE:** Investigate condition of all materials scheduled for demolition and not re-used on this project. Document characteristics of each material or component and submit inventory statement to Building Representative. Include characteristics such as type, color, size, quantity, physical condition and make/model number, if possible.
6. **CLEAN AND REPAIR**: Verify condition of all materials scheduled for demolition and re-use where possible. Clean and/or repair materials as needed.
7. **PREPARATION**: Unless otherwise specified, remove all existing wall coverings, floor coverings and baseboard throughout and prepare existing surfaces for new finish treatments as scheduled. The Demolition Contractor shall scrape existing adhesives to a smooth condition. Refer to finish plans and/or schedules.
8. **PATCHING**: Remove all unused sleeves through the floor slab and fill/patch all penetrations.
9. **ELECTRICAL DEMOLITION**: Existing electrical and communications/ data wiring within partitions, raceways or above the ceiling and not scheduled for re-use shall be removed entirely, including hangers, supports, terminals, conduit and junctions from source to point of termination. Maintain circuit and/or transmission continuity to remaining devices, where necessary.
10. **PIPES AND CONDUITS**: All pipes and conduit in partitions scheduled for demolition shall be removed entirely when not scheduled for re-use.
11. **ABANDONED APPARATUS**: Abandoned electrical circuits, fixtures and devices discovered by the contractor and not scheduled for re-use shall be reported to the Building Representative for further direction.
12. **TELEPHONE/DATA REMOVAL**: Unless otherwise indicated on the drawings, remove all existing telephone equipment and/or components not currently in use.

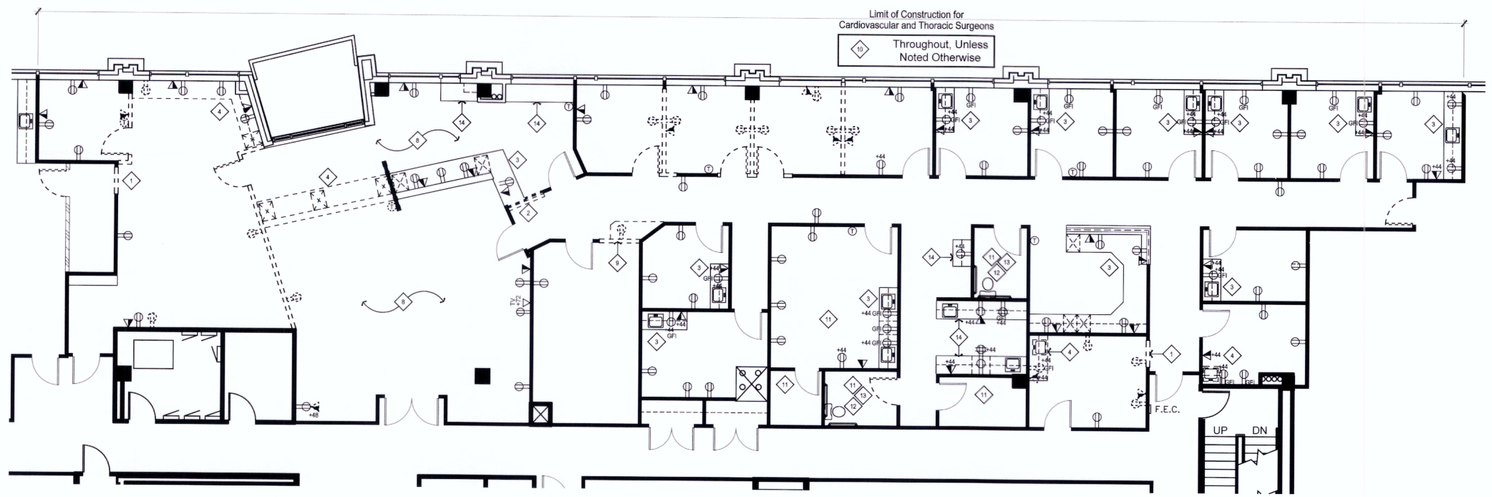
Demolition Legend

DEMO EXISTING. Partitions, door assemblies, electrical devices and/or millwork to be demolished/ removed (typ.). Return all millwork/ fixtures and/or door assemblies, not re-used in this limit of construction, to Building Management. Patch partitions and prepare to receive the scheduled finish treatments.
NOTE: At exterior curtain wall sill partitions (only), where power/ phone/ data devices are designated to be removed/ demolished, all conduit and J-boxes shall remain. Provide building standard blank face plates. All demolition of power/ phone/ data devices at interior partitions shall include removal of all associated conduit and J-boxes and patching/ painting of partitions.

EXISTING PARTITION TO REMAIN.

EXISTING PARTIAL HEIGHT PARTITION to remain.

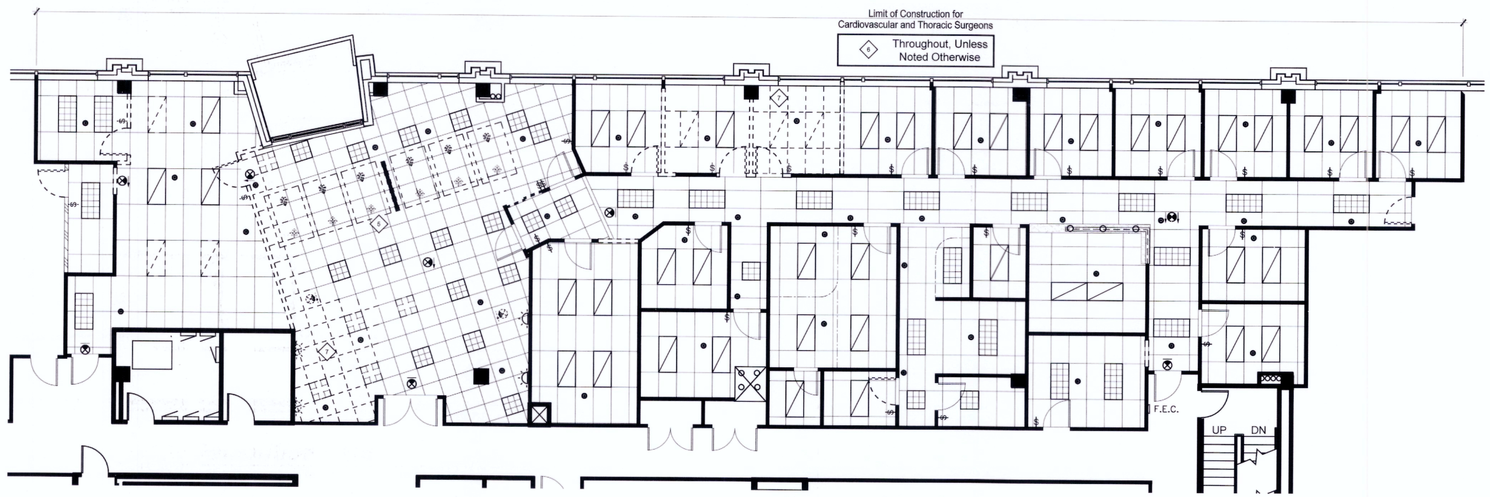
EXISTING PARTITIONS TO BE REWORKED. **Refer to Construction Plan**



1 Demolition Plan
Suite 200

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

Plan North / True North



2 Demolition Ceiling Plan
Suite 200

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

Plan North / True North

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

Room Schedule

200	Waiting		-----
201	Reception	221	Exam
202	Office	222	Hallway
203	Office	223	I.T.
204	Office	224	Break Room
205	Hallway	225	M.A. Station
206	Storage	226	Restroom
207	Office	227	Open Work Area
208	Office	228	M.A. Station
209	Hallway	229	Storage
-----	-----	-----	-----
211	Office	231	Restroom
212	Office	232	Procedure
213	Office	233	Storage
214	Exam	234	Hallway
215	Exam	235	Hallway
216	Exam	236	Exam
217	Exam	237	Exam
218	Exam	238	Vitals
219	Exam	239	Office

Sheet Keyed Notes

1. Cut opening in existing wall for new or relocated 36"w. door
2. REMOVE SLIDING GLASS WINDOW and plastic laminate ledge.
3. REMOVE MILLWORK AND/OR PLUMBING as shown.
   Millwork to be replaced with all new to match existing configuration.
   Plumbing fixtures in Exam Rooms to be salavaged and re-used. Refer also to 1/A1.1 and keynote #5 on A1.1
4. REMOVE MILLWORK AND/OR PLUMBING as shown.
5. REMOVE SUSPENDED WOOD PANELS and light fixtures within panels as shown.
6. EXISTING CEILING to remain. The suspended grid and acoustical ceiling tile system shall remain throughout (UNO). Restore existing ceiling grid to 'like new' conditions as possible. Repair, replace and/or provide new grid and/or tiles as necessary. Match existing specifications.
7. REWORK CEILING GRID. Remove existing ceilig grid and tiles due to new construction. Rework to align and run continuous with adjacent existing grid and tiles.
8. REMOVE WALLCOVERING where indicated. Skim coat and prepare partition for new finish treatments as indicated. Replace all face plates with new to match Suite Standard.
9. Remove partition as show to create a new header above. Refer to Keynote 4 on sheet A2 and detail 3/A2)
10. REMOVE FLOORING throughout Limits of Construction (UNO).
11. EXISTING FLOORING TO REMAIN where indicated. Clean, repair to 'like new' condition as possible.
12. Remove existing water closet, replace with ADA compliant floor mounted water closet.
13. Remove existing wall tiles, replace with new. Refer to finish schedule.
14. Existing millwork to remain.

Symbol Legend

Ceiling Mounted Fixtures/ Devices

- Building Standard 2×4 Fluoresecent light fixture
- Building Standard 2×4 Parabolic light fixture
- Building Standard 2×2 Parabolic light fixture
- Recessed low-voltage wall washer light fixture
- Low voltage pendant light fixture

NOTE: all fixtures shown half shaded shall have night light egress function.

- Existing as-built sprinkler head location
- Building Standard Exit Sign. Green letters on white face. Battery backup. Shade indicated face(s) and arrows (if any) indicate direction.

Wall Mounted Fixtures/ Devices

- Building Standard single pole switch
  Special function switches:
  "D" = dimable switch and ballast
  "3" = Three-way operation
  [lower case letters] indicate circuiting when necessary for clarification
- Thermostat
- Duplex electrical receptacle & face plate
- Quadplex electrical receptacle & face plate
- Combination telephony/ data outlet rough-in (¾"Ø conduit) w/ double gang J-box and single gang plaster ring with pull string to above finished ceiling.
- TV Recessed "clock type" double gang junction box with duplex receptacle and data outlet for television connection. Coordinate with Tenant's Vendor for required specifications.
- Water supply line

Symbols shown shaded and/or dashed indicate devices to be removed/ demolished.
NOTE: At exterior curtain wall sill partitions (only), where power/ phone/ data devices are designated to be removed/ demolished, conduit and j-boxes shall remain. Provide building standard blank face plates. All demolition of power/ phone/ data devices at interior partition shall include removal of all associated conduit and j-boxes and patch/ paint of partitions.

"N" New fixture/ device to be installed at this location.

"R" Relocated fixture/ device to be installed in this location.

Refer to Engineering Drawings for complete specifications

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STATE OF COLORADO
ROBERT J. KLAP
B-3282
LICENSED ARCHITECT
9/5/18

Cardiovascular and Thoracic Surgeons

Dates of Record

Project Start Date: 30 March 2018

Issued On	Issued For
30 August 2018	Tenant Review & Approval; and Construction

Sheet Contents					Demolition Plan Demolition Ceiling Plan
Project #	Proj Mgr	Designed by	Drafted by	Checked by	
428008.00	GBS	MH	MH	GBS	

D1

RSN: 13
Permit #: 18-1524209-LT

project start date: 30 March 2018
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by MayH per layout tab: A1.1

Sheet A1.1 Plan Notes

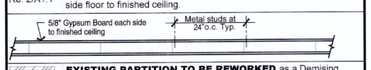
1. **Refer to General Notes** for additional requirements.
2. **DOOR ASSEMBLIES:**
   - 2.1. All assemblies shown on the drawings and not referenced to the Door Schedule are existing to remain (unless noted otherwise).
   - 2.2. Inspect, make repairs to, and clean ALL existing assemblies and components to like new conditions. Re-use existing door assemblies and/or components where possible.
   - 2.3. Provide new door assemblies and/or components as specified on the drawings. Door frames shall be securely fastened in place and the entire assembly shall be installed plumb and square with maximum diagonal distortion of 1/8". Undercut doors as needed for specified floor coverings.
3. **INSULATION and ATTENUATION**: Provide insulation or sound attenuation in walls and above suspended ceiling if indicated on the drawings. Specifications shall conform to the following:
   - 3.1. Sound attenuation in walls shall be unfaced fiberglass, 16" to 24" wide to correspond with stud width.
   - 3.2. Thermal insulation in walls shall be Kraft faced fiberglass, 16" to 24" wide, with R-13 thermal value.
   - 3.3. Sound attenuation in ceilings shall be foil faced fiberglass, 24" wide, acceptable for use in return air plenums.
4. **BACKING/BLOCKING:** Provide solid wood blocking in partitions for plumbing fixtures, door stops, wall mounted equipment (including televisions), millwork, etc., and as indicated on the drawings. Plywood backing may be used for shelving. Framing material for blocking, nailers, etc. shall be Western Douglas Fir or Hemlock.
5. **PARTITIONS**: Conform to the following:
   - 5.1. Partitions shall be erected plumb and true.
   - 5.2. Drywall partitions and joints shall be taped and finished smooth and prepared for specified finish treatment. Coat vertical joints from floor to ceiling for additional substrate to the base trim.
   - 5.3. Skim coat existing partitions as needed.
   - 5.4. All exposed corners shall be fitted with metal corner bead and top of walls at underside of suspended ceilings shall be straight and true.
   - 5.5. Provide "kickers" or metal stud support from the top of the partition to the underside of structure above for long runs and at all jambs of openings for door assemblies and at any glazed opening within 36" of the strike side of swinging doors.
6. **EXISTING LIFE SAFETY SYSTEMS**: Modify (fire alarm/smoke detection) on a ***DESIGN-BUILD*** basis. Conform to these drawings and documents and as required for obtaining a building permit. Refer to General Notes.

Wall Legend

EXISTING PARTITION to remain.

EXISTING PARTIAL HEIGHT PARTITION to remain.

Re: 2/A1.1 — **NEW STANDARD INTERIOR PARTITION**. Non-rated assembly. 25 gauge 4-7/8"" metals studs at 24" o.c. with 5/8" gypsum board each side floor to finished ceiling.

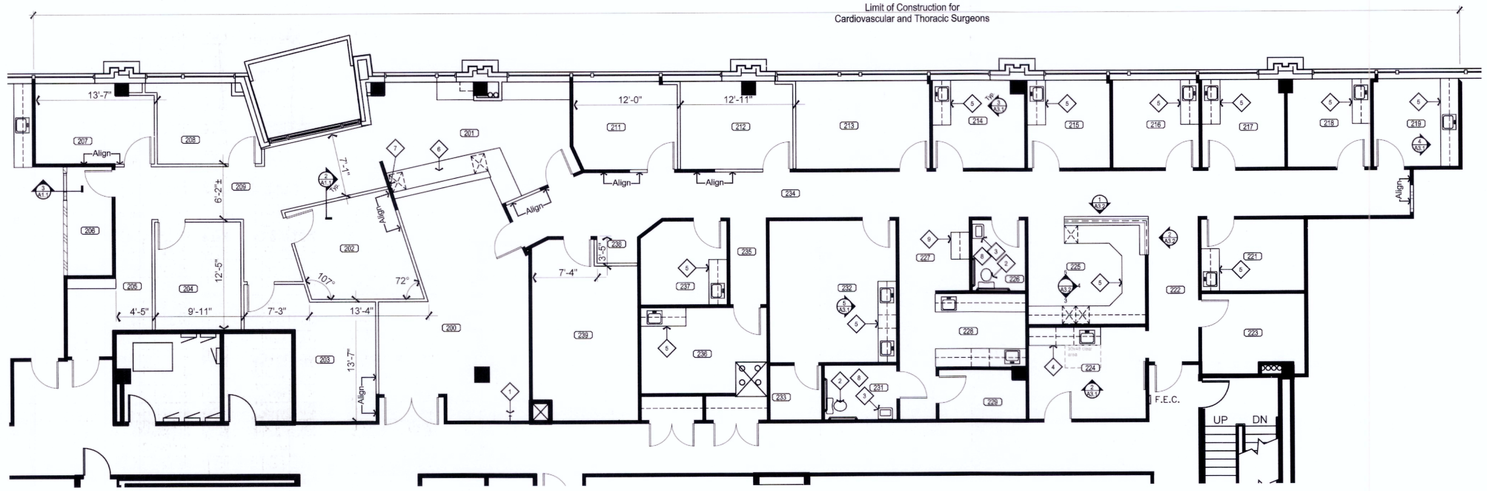


Re: 3/A1.1 — **EXISTING PARTITION TO BE REWORKED** as a Demising Partition: (See below)

Re: 3/A1.1 — **NEW DEMISING PARTITION.** Non-rated assembly. 20 gauge 4-7/8"" metal studs at 24" o.c. floor to structure above with 5/8" gypsum board floor to 10" below structure above (for return air transfer) and 4-7/8"" fiberglass sound attenuation batts floor to finished ceiling height. Match Building Standard.



Match existing construction. Field verify existing construction for extent of work and verify match to these partition types.

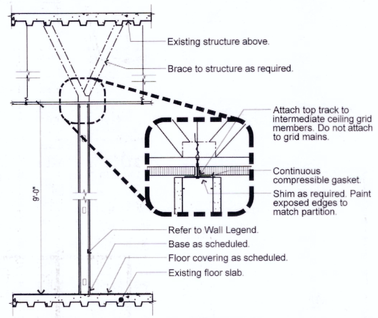


1 Construction Plan

Suite 200

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

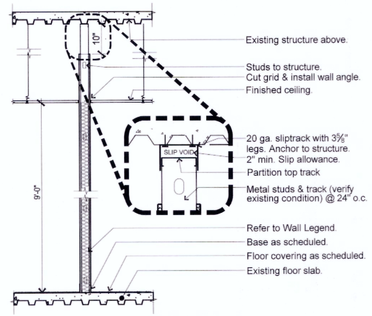
Plan North / True North



2 Section: Partition

Typical Standard Interior Partition

Scale: 1/2" = 1'-0"



3 Section: Partition

Typical Demising Partition

Scale: 1/2" = 1'-0"

Room Schedule

200	Waiting		-----
201	Reception	221	Exam
202	Office	222	Hallway
203	Office	223	I.T.
204	Office	224	Break Room
205	Hallway	225	M.A. Station
206	Storage	226	Restroom
207	Office	227	Open Work Area
208	Office	228	M.A. Station
209	Hallway	229	Storage
-----	-----	-----	-----
211	Office	231	Restroom
212	Office	232	Procedure
213	Office	233	Storage
214	Exam	234	Hallway
215	Exam	235	Hallway
216	Exam	236	Exam
217	Exam	237	Exam
218	Exam	238	Vitals
219	Exam	239	Office

Sheet Keyed Notes

1. NEW WATER SUPPLY. Provide 1/4" diameter soft copper connection with shut-off valve, to coffee maker and/or at refrigerator location(s) as shown.
2. NEW PLUMBING FIXTURE: Provide new ADA compliant floor mounted water closet.
3. NEW PLUMBING FIXTURE: Provide new wall hung vitreous china lavatory with ADA compliant faucet and handles
4. NEW MILLWORK & PLUMBING. Refer to elevations and details.
5. NEW MILLWORK to match previous configuration. At all Exam Rooms, Procedure Room, and (1) M.A. Station as indicated. Plumbing fixtures to be re-set at all Exam Rooms and Procedure Room. Refer also to elevations and Finish Treatment Schedules for details.
6. REWORK EXISTING RECEPTION DESK. Replace existing plastic laminate work surface with new laminate. Replace existing plastic laminate transaction top with new solid surface material. Replace existing wood panels at front of desk with new stacked stone. Refer to finish treatment schedule for finish specifications.
7. Infill partition with new dry wall. Wall to be painted as scheduled.
8. Install new emergency call buttons tied to M.A. Stations 225 & 228
9. Alternate: Replace millwork in Open Office Area 227 with new.

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

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STATE OF COLORADO
ROBERT J. KLAP
B-3282
LICENSED ARCHITECT
9/5/18

Cardiovascular and Thoracic Surgeons

Dates of Record

Project Start Date: 30 March 2018

Issued On	Issued For
30 August 2018	Tenant Review & Approval; and Construction

Sheet Contents: Construction Plan, Standard Partition Sections

Project #	Proj Mgr	Designed by	Drafted by	Checked by
428008.00	GBS	MH	MH	GBS

A1.1

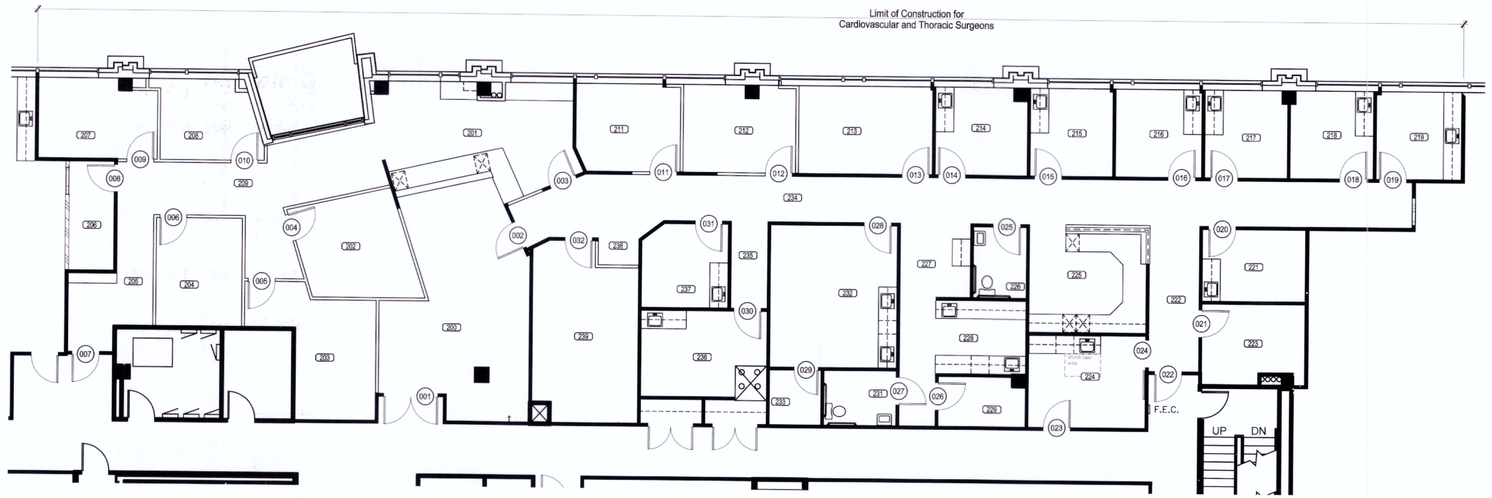
RSN: 1319864
Permit #: 18-1524209-LT

1444 South Potomac • Cardiovascular And Thoracic Surgeons

project start date: 30 March 2018
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Sheet A1.2 Plan Notes

1. **Refer to General Notes** for additional requirements.
2. **DOOR ASSEMBLIES:**
   - 2.1. All assemblies shown on the drawings and not referenced to the Door Schedule are existing to remain (unless noted otherwise).
   - 2.2. Inspect, make repairs to, and clean ALL existing assemblies and components to like new conditions. Re-use existing door assemblies and/or components where possible.
   - 2.3. Provide new door assemblies and/or components as specified on the drawings. Door frames shall be securely fastened in place and the entire assembly shall be installed plumb and square with maximum diagonal distortion of 1/8". Undercut doors as needed for specified floor coverings.



1 Door Schedule Plan
Suite 200

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

Plan North / True North

Room Schedule

200	Waiting	-----	-----
201	Reception	221	Exam
202	Office	222	Hallway
203	Office	223	I.T.
204	Office	224	Break Room
205	Hallway	225	M.A. Station
206	Storage	226	Restroom
207	Office	227	Open Work Area
208	Office	228	M.A. Station
209	Hallway	229	Storage
-----	-----	-----	-----
211	Office	231	Restroom
212	Office	232	Procedure
213	Office	233	Storage
214	Exam	234	Hallway
215	Exam	235	Hallway
216	Exam	236	Exam
217	Exam	237	Exam
218	Exam	238	Vitals
219	Exam	239	Office

Provide lever or other approved hardware on all new and relocated doors.
2009 ICC/ANSI 117.1 309.4

Door Schedule[1]

Mark	State[2]	DOOR Type	DOOR Leaf Size	DOOR Material	DOOR Finish	DOOR FRR[3]	FRAME Material	FRAME Finish	FRAME FRR[3]	HARDWARE Latch Func.	HARDWARE Additional Components	Remarks	Mark
001	E	2Fre	PR 3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	Cl	--	001
002	E	Li	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	1	Cl	--	002
003	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	--	--	003
004	R	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	--	Relocated door	004
005	N	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	--	--	005
006	N	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	--	--	006
007	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	Cl	--	007
008	R	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	--	Relocated door	008
009	N	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	--	--	009
010	N	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	--	--	010
011	R	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	--	Relocated door	011
012	R	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	--	Relocated door	012
013	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	--	--	013
014	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	1	--	--	014
015	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	1	--	--	015
016	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	1	--	--	016
017	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	1	--	--	017
018	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	1	--	--	018
019	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	1	--	--	019
020	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	1	--	--	020
021	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	--	--	021
022	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	Cl	--	022
023	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	--	--	023
024	N	Ba	3'-2" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Drywall	Painted	None	4	Ba	New barn door	024
025	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	3	--	--	025
026	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	1	--	--	026
027	R	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	3	--	--	027
028	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	1	--	--	028
029	E	Fl	2'-8" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	--	--	029
030	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	1	--	--	030
031	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	1	--	--	031
032	E	Fl	3'-0" x 7'-0" x 1 3/4"	S.C.Wood	Stained	None	Aluminum	Prefinished	None	2	Cl	--	032

Footnotes

[1] **The General Contractor shall field verify that all door and hardware specifications match Building Standards** (unless noted otherwise) **and coordinate ANY AND ALL discrepancies directly with the TPS representative** (as indicated on the cover sheet Project Team list) ***prior* to proceeding**. This includes, but is not limited to, species, stain, finish, style, function, part/ product numbers, and design specifications as well as extent of inclusions / exclusions to component lists and the like.

[2] State:
E = Existing to remain. Assure proper working condition.
N = Provide New Door, Frame or Hardware in its entirety.
N/R = Provide New OR Relocate salvaged Door, Frame or Hardware if available. Determine available components in field.

[3] Rating: Minimum Fire-resistive Rating (per UL) required in minutes

Door, Frame, and Hardware Specifications

Wood Doors:
Wood veneer interior doors shall be 1¾" thick, 5-ply particle board core complying with CS 236, Type I, Density C, Class 1, and with AWI standard PC-5 construction, NWWDA I.S. 1.6 Type II adhesive, solid core, flush slab style.
(The General Contractor shall confirm the Building Standard specifications and match accordingly.)

Door Frames:
Entry/Exit: Prefinished Aluminum
Interior: Prefinished Aluminum
(The General Contractor shall confirm the Building Standard specifications and match accordingly.)

Hardware:
Hardware shall meet Building Standard specifications, with stainless steel finish.

Standard hardware to be included with every door in the Door Schedule shall include:
- Latchset: Lever Handle at interior and exterior (UNO), with 1" minimum throws.
- Hinges
- Dust Proof Strike Plate
- Silencers
- Wall or Door Stop

The General Contractor shall provide separate cost to label all keys (locksets). Coordinate with Tenant and Building Management on labeling numbers.

Latch Function Legend

Hardware shall meet Building Standard specifications.

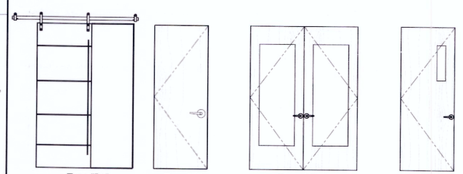
1	Passage
2	Keyed Lock
3	Privacy
4	Finger Pulls

Additional Hardware Components Legend

Hardware shall meet Building Standard specifications, with stainless steel finish.

Barn	Surface Sliding ("Barn") Door Assembly Hardware: Heavy duty track and roller, stops, floor guide
Cl	Closer, Automatic Door (1 per leaf)

Door Types



Type "Ba" Barn Door Assembly
Type "Fl" Standard Flush Swinging Door
Type "2Fre" Paired French Swinging Door
Type "Li" Swinging Flush Door with Glass Light

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1444 South Potomac
1444 South Potomac
Aurora, CO 80012
Suite 200



Cardiovascular and Thoracic Surgeons

Dates of Record

Project Start Date: 30 March 2018

Issued On	Issued For
30 August 2018	Tenant Review & Approval; and Construction

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

Sheet Contents	Door Schedule Plan Door Schedule

Project #	Proj Mgr	Designed by	Drafted by	Checked by
428008.00	GBS	MH	MH	GBS

A1.2

Permit #: [illegible]

project start date: 30 March 2018
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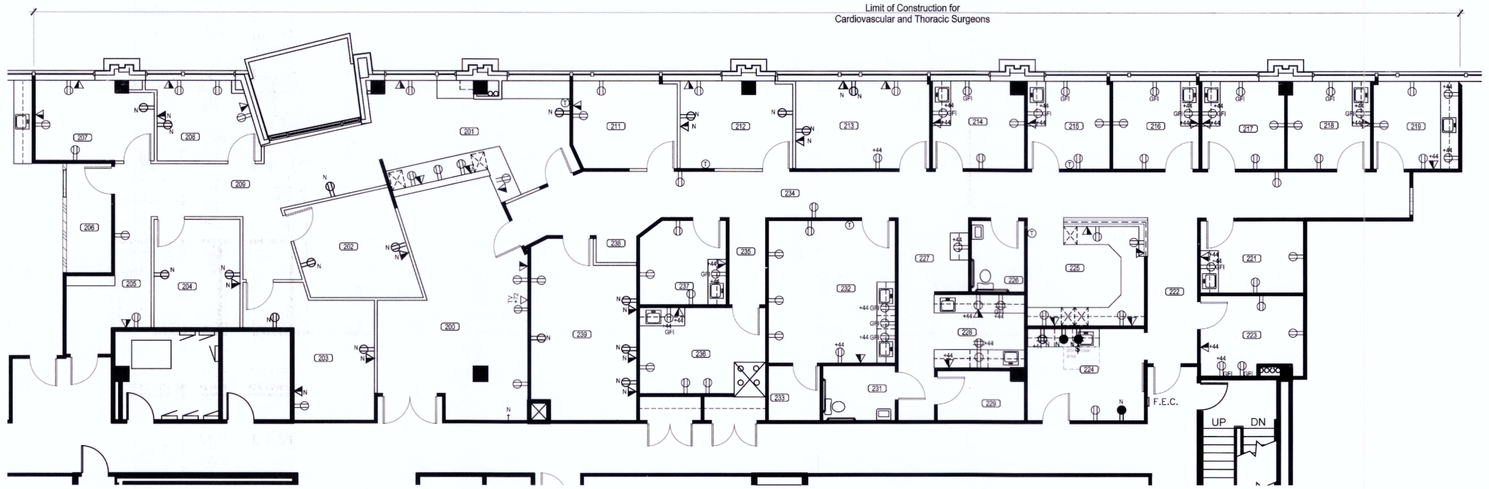
Sheet A2 Plan Notes

1. **Refer to General Notes** for additional requirements.
2. **The SUSPENDED CEILING SYSTEM** is existing-to-remain throughout (unless noted otherwise), and shall be refurbished as follows:
   - 2.1. Suspended grid and components shall be cleaned or touched-up where soiled or discolored. Repair and/or replace damaged members. Caulk fill all holes. Match existing conditions.
   - 2.2. Clean, touch-up and/or replace soiled, discolored and damaged ceiling tiles. Replacement ceiling board shall be per specifications or building standards.
   - 2.3. Inspect grid suspension system and adjust ceiling plane, if necessary. Provide additional support where necessary.
   - 2.4. Replacement of materials, when required, shall occur consistently and completely in individual rooms and/or spaces for uniformity of appearance and aesthetics.
   - 2.5. Installation of tiles shall be continuous over walls or individually cut-in at rooms or areas. Refer to drawings for specific requirements.
   - 2.6. All tiles shall be seated tight, level and true within the grid system.
3. **PROVIDE NEW SUSPENDED CEILING SYSTEM** where required:
   - 3.1. Suspended grid system shall be 24" × 48" pattern, 1" nominal width, to match existing.
   - 3.2. Ceiling tile shall be 2× 4 × 3/4" thick, lay-in type to match existing.
   - 3.3. Installation of grid system shall be in complete accordance with the manufacturer's specifications utilizing the layout as indicated on the drawings.
   - 3.4. Install all grid members level and true and suspend from the structure above in accordance with ASTM C635, "standard specification per metal suspension system for acoustical tile and lay-in panels-intermediate duty."
   - 3.5. Installation of tiles shall be continuous over walls. Refer to drawings for specific requirements.
   - 3.6. All tiles shall be seated tight, level and true within the grid system.
   - 3.7. The suspended ceiling system shall conform to requirements set forth by U.L.
4. **CEILING HEIGHT**: 9'-0" AFF (UNO). Refer to construction details for ceiling construction and interface with partitions.
5. **FIXTURES AND DEVICES**. Provide and/or relocate light fixtures, switches, and controls indicated on the drawings.
   - 5.1. Refer to Symbols Legend for fixture type and/or specification.
   - 5.2. Install and support fixtures from the structure in accordance with the code.
   - 5.3. Install all new light fixtures, sprinkler heads, diffusers, speakers, detectors, alarms, etc. in the center of the ceiling board or section and symmetrical throughout rooms and open areas, unless noted otherwise.
   - 5.4. The contractor shall field verify all proposed locations of light fixtures prior to commencing construction and shall notify TPS of any discrepancies and/or conflicts with existing installations.
   - 5.5. Existing fixtures scheduled to remain or be re-used shall be inspected and reworked, if necessary. Fixtures shall be cleaned, including lenses and lamps. Defective ballasts and other components shall be replaced. Match existing conditions.
   - 5.6. All light fixtures, exit signs, and switch devices shown throughout are to be assumed existing to remain (unless noted otherwise).
     'R' indicates relocated fixture or device
     'N' indicates new fixture or device
6. **LIGHTING DIMENSIONS:** Unless noted otherwise, all light fixtures and devices are dimensioned to the centerline of the fixture.
7. **EXISTING FIRE SPRINKLER HEADS** mounted in the ceiling may be shown on the drawings, and are intended for informational purposes only. Drawings shall be submitted by the General Contractor for any new work required.
8. **MODIFY EXISTING FIRE SPRINKLER SYSTEM** on a ***DESIGN-BUILD*** basis. Conform to these drawings and documents and as required for obtaining a building permit. Refer to General Notes.
9. **PROVIDE ELECTRICAL POWER AND COMMUNICATIONS OUTLETS**, receptacles and devices indicated on the drawings.
   - 9.1. Refer to symbols legend for device type and/or specification.
   - 9.2. Install in locations as shown on the drawings.
   - 9.3. All power and communications receptacles provided for general purposes shall be installed at 18" from the finished floor to the center of the device (unless noted otherwise).
   - 9.4. Unless noted otherwise, all electrical power and communications outlets, receptacles and devices are dimensioned to the centerline of the device or pair of devices.
   - 9.5. Confirm all box locations with Tenant prior to wiring.
   - 9.6. All rectangular outlet boxes shall be installed with the long side in the vertical position, except above counters and cabinets, or otherwise shown on the drawings.
   - 9.7. All rectangular switch and control boxes for lighting and other devices shall be installed with the long side in the vertical position, recessed flush with the wall surface and at 48" above finished floor to the center of the control unit (unless noted otherwise).
   - 9.8. Outlets shall not be installed back to back in sound insulated partition.
   - 9.9. All outlets indicated to be installed in existing partitions or furred partitions or columns shall be cut-in or recessed flush with wall surface. Furr and/or remove sheathing, if necessary.
   - 9.10. All electrical power and communications outlets, receptacles and devices shown throughout are to be assumed existing to remain (unless noted otherwise).
     'R' indicates relocated outlet or device
     'N' indicates new fixture or device
10. **NEW WIRING DEVICES** shall be specification grade; 15 amp. For general application, 20 amp. or greater for dedicated circuits and as required by circuit load. Provide smooth nylon cover plates for all outlets and devices. Color: match existing
11. **COMMUNICATION/ DATA OUTLETS** shall conform to the following:
    - 11.1. Communication/data outlets shall consist of an opening in the sheathing with a single gang plaster ring and pullwire with plastic bushing up through wall to the ceiling plenum.
    - 11.2. When inaccessible by the method described above or when indicated on the drawings, include one (1) ¾" conduit (min.) and 2" deep single gang box for outlet.
    - 11.3. Where communications/data outlets are located in low height partitions or mounted in floors, a maximum of three (3) outlets shall be fed from one (1) ¾" conduit.
    - 11.4. All communication/data cables, plates, jacks, and final connections shall be provided under a separate contract by the Tenant. All materials shall be installed in compliance with all codes and ordinances and these documents. Cables and fittings installed above the ceiling in the return air plenum shall be rated and labeled for use in plenums. Cables shall be supported from the structure, independent of other support hangers.



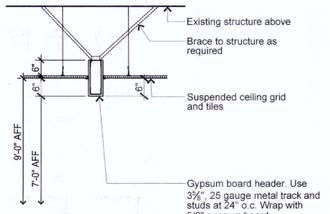
1 Reflected Ceiling Plan
Suite 200
Scale: 1/8" = 1'-0"

Plan North / True North

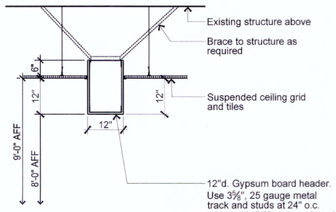


2 Power and Communications Plan
Suite 200
Scale: 1/8" = 1'-0"

Plan North / True North



3 Section: Gypsum Board Header
At Hallway 209/Vitals 238
Scale: 1/2" = 1'-0"



4 Section: Gypsum Board Header
At *location*
Scale: 1/2" = 1'-0"

Room Schedule

200	Waiting		-----
201	Reception	221	Exam
202	Office	222	Hallway
203	Office	223	I.T.
204	Office	224	Break Room
205	Hallway	225	M.A. Station
206	Storage	226	Restroom
207	Office	227	Open Work Area
208	Office	228	M.A. Station
209	Hallway	229	Storage
-----	-----	-----	-----
211	Office	231	Restroom
212	Office	232	Procedure
213	Office	233	Storage
214	Exam	234	Hallway
215	Exam	235	Hallway
216	Exam	236	Exam
217	Exam	237	Exam
218	Exam	238	Vitals
219	Exam	239	Office

Sheet Keyed Notes

1. EXISTING LIGHT FIXTURES to remain throughout Limits of Construction, except where relocation is indicated. The General Contractor shall field verify and ensure proper working condition of all existing light fixtures.
2. EXISTING CEILING to remain. The suspended grid and acoustical ceiling tile system shall remain throughout (UNO). Restore existing ceiling grid to 'like new' conditions as possible. Repair, replace and/or provide new grid and/or tiles as necessary. Match existing specifications.
3. NEW SUSPENDED CEILING to match existing. Provide grid and acoustical tile system where indicated. Match existing specifications and install to align and run continuous with existing ceiling system.
4. Provide NEW FRAMED GYP. BD. HEADER where indicated. Refer to 3/A2 for details. Match height at existing header adjacent to Vitals 238.
5. Provide NEW 12"d. FRAMED GYP. BD. HEADER at 96"AFF. to mirror transaction top/desk below. Refer to 4/A2 for details.
6. Existing curtain track to remain.

Symbol Legend

Ceiling Mounted Fixtures/ Devices

- Building Standard 2×4 Fluoresecent light fixture
- Building Standard 2×4 Parabolic light fixture
- Building Standard 2×2 Parabolic light fixture
- Recessed low-voltage wall washer light fixture
- Low voltage pendant light fixture

NOTE: all fixtures shown half shaded shall have night light egress function.

- Building Standard Exit Sign. Green letters on white face. Battery backup. Shade indicated face(s) and arrows (if any) indicate direction.

Wall Mounted Fixtures/ Devices

- Building Standard single pole switch
  Special function switches:
  "D" = dimable switch and ballast
  "3" = Three-way operation
  [lower case letters] indicate circuiting when necessary for clarification
- Thermostat
- Duplex electrical receptacle & face plate
- Quadplex electrical receptacle & face plate
- Combination telephony/ data outlet rough-in (¾"Ø conduit) w/ double gang J-box and single gang plaster ring with pull string to above finished ceiling.
- TV Recessed "clock type" double gang junction box with duplex receptacle and data outlet for television connection. Coordinate with Tenant's Vendor for required specifications.
- Water supply line

"N" New fixture/ device to be installed at this location.

"R" Relocated fixture/ device to be installed in this location.

Refer to Engineering Drawings for complete specifications

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STATE OF COLORADO
ROBERT J. KLAP
B-3282
LICENSED ARCHITECT
9/5/18

Cardiovascular and Thoracic Surgeons

Dates of Record

Project Start Date: 30 March 2018

Issued On	Issued For
30 August 2018	Tenant Review & Approval; and Construction

Sheet Contents	Reflected Ceiling Plan Power and Communications Plan

Project #	Proj Mgr	Designed by	Drafted by	Checked by
428008.00	GBS	MH	MH	GBS

A2

RSN: 1319864
Permit #: 18-1524209-LT

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

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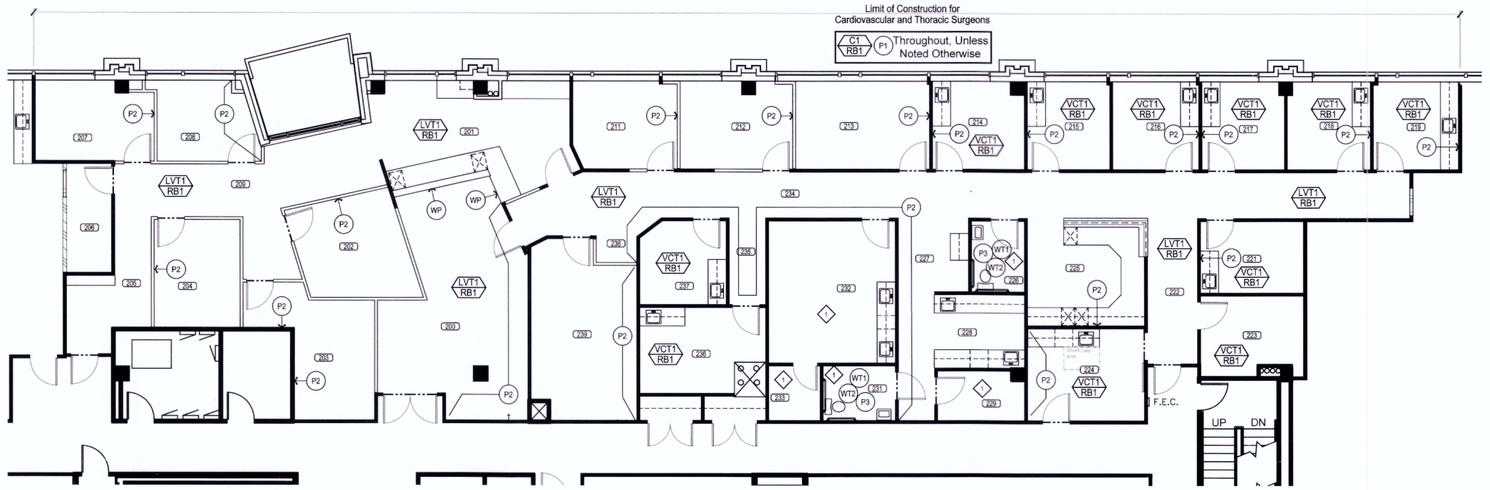
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General Notes

Finish Treatment Schedule

1. **GENERAL FINISH TREATMENT NOTES**:
   - 1.1. Coordination: finish treatment subcontractors and installers shall coordinate with other trades for applications affecting other tradework, especially millwork, etc.
   - 1.2. Unless noted otherwise, all floor coverings, baseboard, and floor preparation shall be the responsibility of the General Contractor, including removal of existing materials.
   - 1.3. Installation: all finish treatments shall be installed or applied in strict accordance with the manufacturer's written specifications and the drawings.
   - 1.4. Protection: protect all surfaces, doors, hardware, outlet plates, etc. From spills, splatters and overspray of paint, drywall compound, adhesive and other materials.
   - 1.5. Preparation: field measure each space to receive finish treatment as a basis of supplying, cutting and seaming material. Do not scale the drawings or calculate sizes from dimensions shown.
   - 1.6. Surfaces: all surfaces shall be properly prepared prior to installation of material including but not limited to priming of walls to receive paint, sizing of walls to receive wall covering, patching/filling holes and depressions, etc.
   - 1.7. Surface texture: unless noted otherwise, all drywall finish shall be smooth.
2. **CARPET INSTALLATION**: carpet installation shall comply with the workmanship guidelines as published by the American Carpet Institute (latest edition), and in strict accordance with the manufacturer's written specifications, and shall also conform to the following:
   - 2.1. Where carpet seams occur in doorways, locate seam beneath center of door slab.
   - 2.2. Furnish and install resilient type reducer strip (saddle) where resilient floor coverings abutt carpet. See drawing for color.
   - 2.3. Coordinate installation for uniformity where dye-lot variations may occur in material.
3. **WALLCOVERING INSTALLATION**: wall covering shall be installed or applied in complete accordance with the manufacturer's written specifications and shall also conform to the following:
   - 3.1. Wrap all device cover plates with wall covering only on walls scheduled to receive wall covering (match wall finish).
   - 3.2. Furnish and install "J" metal polished aluminum edge cap (mudded in) at corners where wall coverings terminate and ends are exposed.
4. **PAINT**: paint shall be installed or applied in strict accordance with the manufacturer's written specifications and as recommended by "The Modern Guide To Painting Specifications" (latest edition) and shall also conform to the following:
   - 4.1. Surfaces scheduled for painting shall receive no less than two coats of paint (3.0 mil, min. Thickness).
   - 4.2. All materials shall be evenly applied avoiding runs, sags, flashing or splotching. All coats shall be allowed to dry thoroughly prior to application of succeeding coats. Where necessary, provide masking to avoid inadvertent applications.
   - 4.3. Unpainted gypsum board and drywall shall be primed prior to painting. The primer may be tinted with the paint color only as recommended by the paint manufacturer.
   - 4.4. At the completion of the job and after installation of the floor covering, touch-up paint all areas as required. Blend paint touch-up in with existing for a consistent and uniform appearance.
5. **WINDOW COVERINGS**: unless noted otherwise, window coverings shall be the responsibility of the General Contractor and shall conform to the following:
   - 5.1. When specified on the drawings as new or for replacement, provide new window coverings as specified.
   - 5.2. When specified on the drawings for re-use of existing window coverings, the General Contractor shall inspect existing conditions of material and operation and make necessary repairs or replace to match existing. Replace window coverings if missing. Upon completion of job, clean material, hardware and housings thoroughly, including both sides of window covering material.

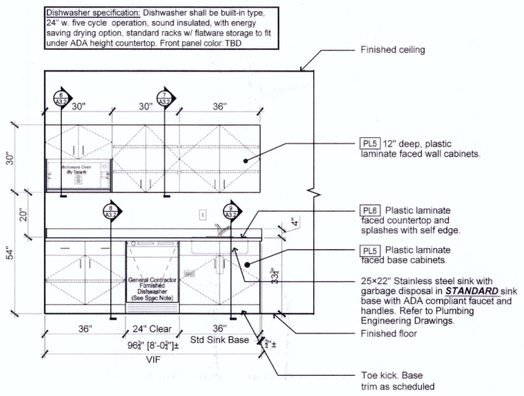


1 Finish Treatment Plan

Suite 200

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

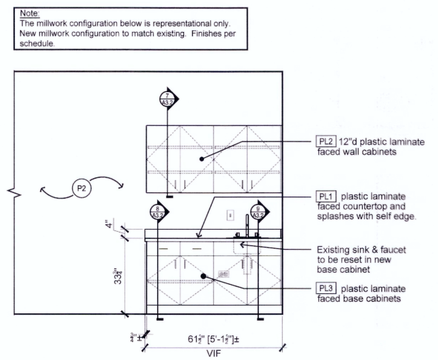
Plan North / True North



2 Millwork Elevation:

At Break Room 224

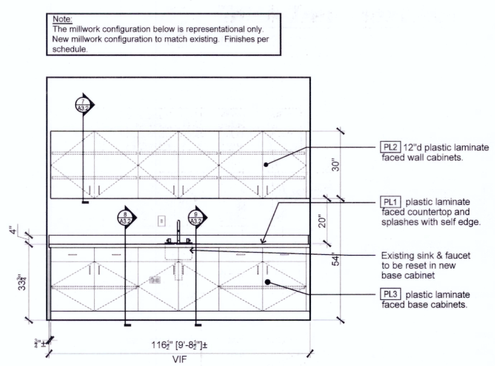
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3 Millwork Elevation:

At Exam Room

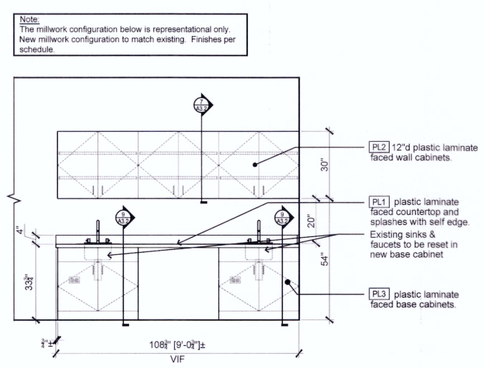
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4 Millwork Elevation:

At Exam Room 219

Scale: 3/8" = 1'-0"



5 Millwork Elevation:

At Procedure 232

Scale: 3/8" = 1'-0"

Room Schedule

200	Waiting		-----
201	Reception	221	Exam
202	Office	222	Hallway
203	Office	223	I.T.
204	Office	224	Break Room
205	Hallway	225	M.A. Station
206	Storage	226	Restroom
207	Office	227	Open Work Area
208	Office	228	M.A. Station
209	Hallway	229	Storage
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211	Office	231	Restroom
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215	Exam	235	Hallway
216	Exam	236	Exam
217	Exam	237	Exam
218	Exam	238	Vitals
219	Exam	239	Office

Sheet Keyed Notes

1. EXISTING FLOORCOVERING to remain in this area.
   Alternate:
   Install new porcelain floor tile at Restrooms 226 & 231

Finish Treatment Schedule[1]

NOTE: all surfaces must be clean, dust, and dry before coatings are applied
All product is assumed to be NEW, unless noted otherwise

Material	Manufacturer	Style/ Line	Color	MARK	Remarks/Comments
Wallcovering					
Primer	Sherwin-Williams	ProMar 200	White	(Not Shown)	Primer for all new exposed gypsum board surfaces.
Primer	Sherwin-Williams	B66W1	White		Primer for new steel, galvanized or aluminum substrate
Interior Paint	Sherwin-Williams	ProMar 200 Eg-Shel	SW7646 First Star	P1	Provide two (2) coats (minimum) at all new surfaces. • P1: Paint all gypsum board surfaces throughout Limit of Construction (UNO). • P2: Accent paints where indicated.
Interior Paint	Sherwin-Williams	ProMar 200 Eg-Shel	SW9141 Waterloo	P2	
Interior Paint	Sherwin-Williams	B21W200 ProMar200	SW7646 First Star	P3	Paint for all exposed gypsum board surfaces at restrooms.
Ceramic Wall Tile	Arizona Tile	Core	White (gloss)	WT1	To 48"AFF only, pattern and grout color:tbd
Ceramic Wall Tile	Arizona TIle	Core	Grey (gloss)	WT2	To 48"AFF only, pattern and grout color:tbd
Natural Ledgestone Wall Panels	TBD	TBD	TBD	WP	
Millwork					
Plastic Laminate	Existing to Remain			PL0	Existing countertops, splashes and vertical surfaces to remain. Repair / provide new as necessary due to construction.
Plastic Laminate	Wilsonart		Calcutta Marble #4925K-07	PL1	Countertops and Splashes, UNO
Plastic Laminate	Formica		Neutral Twill #8826-58	PL2	Wall cabinets, UNO. Plastic laminate pattern shall run vertically on all surfaces, UNO. Confirm with Tenant Planning Services.
Plastic Laminate	Formica		Earthen Twill #8828-58	PL3	Base cabinets, UNO. Plastic laminate pattern shall run vertically on all surfaces, UNO. Confirm with Tenant Planning Services.
Plastic Laminate	Formica		Blackened Steel #8918-58	PL4	Worksurface at Reception and M.A. Station 225
Plastic Laminate	Formica		Espresso Pear #5489-NT	PL5	Vertical surfaces at M.A. Station 225 & Break Room 224
Plastic Laminate	Wilsonart		White Cascade #5003-38	PL6	Horizontal surfaces at M.A. Station 225 & Break Room 224
Solid Surface Material	Daltile	Nature Series	Calacatta Halo OQ13	SS1	
Floorcovering					
## oz. patterned loop carpet	Shaw Contract	Flicker 5A174	Starlight 27504	C1	Include schluter strip at flooring transition.
Vinyl Composition Tile	Armstrong	Standard Excelon	51908 Pewter	VCT1	
Luxury Vinyl Tile	Shaw	Terrain II 045Hv 20mil	Summit 05012	LVT1	Include schluter strip at flooring transition.
Base Trim					
4" Rubber Base Trim	Johnsonite		#29 Moonrock	RB1	Only coiled base trim approved. Coved at all surfaces

[1] The General Contractor shall verify that all finish treatments specified above match OGOO prior to order/ installation.

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

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Cardiovascular and Thoracic Surgeons

STATE OF COLORADO
ROBERT J. KLAP
B-3282
LICENSED ARCHITECT
4/5/18

Dates of Record

Project Start Date: 30 March 2018

Issued On	Issued For
30 August 2018	Tenant Review & Approval, and Construction

Sheet Contents	Finish Treatment Plan Finish Treatment Schedule

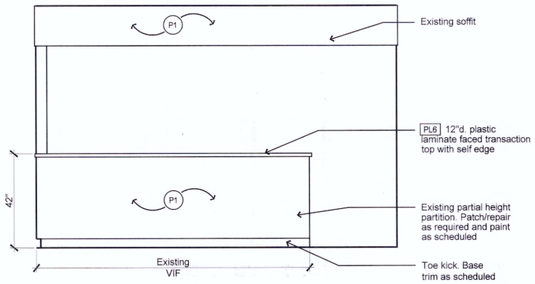
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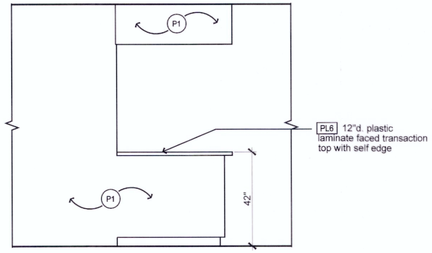
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Permit #: 18-1524209-LT

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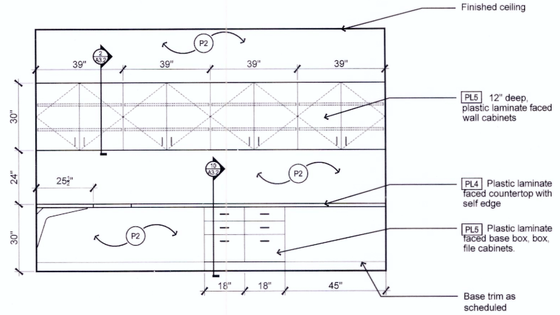
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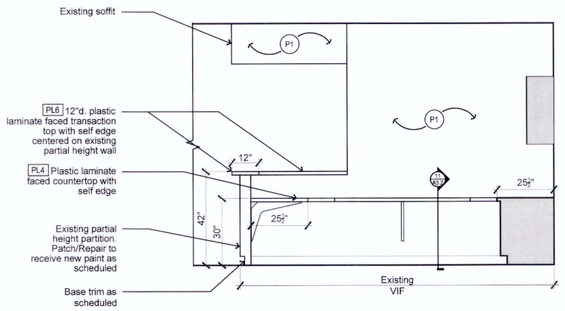
1 Millwork Elevation:
At M.A. Station 225 — Scale: 3/8" = 1'-0"



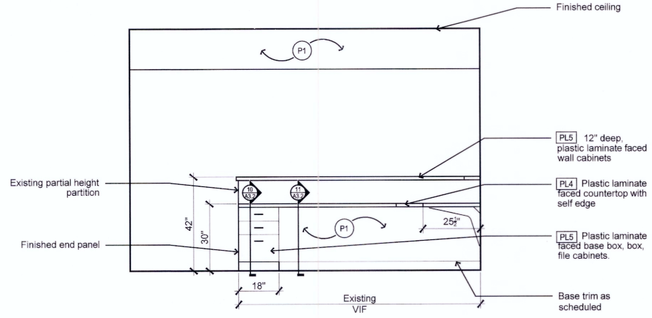
2 Millwork Elevation:
At M.A. Station 225 — Scale: 3/8" = 1'-0"



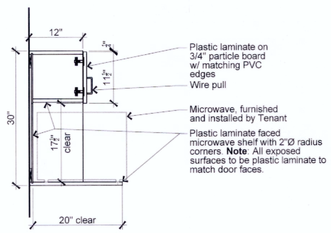
3 Millwork Elevation:
At M.A. Station 225 — Scale: 3/8" = 1'-0"



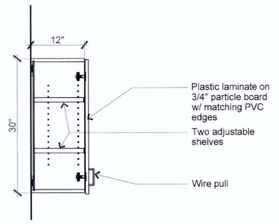
4 Millwork Elevation:
At M.A. Station 225 — Scale: 3/8" = 1'-0"



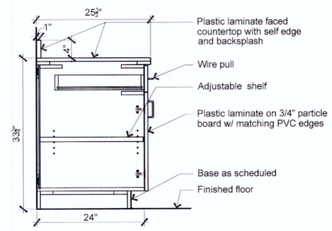
5 Millwork Elevation:
At M.A. Station 225 — Scale: 3/8" = 1'-0"



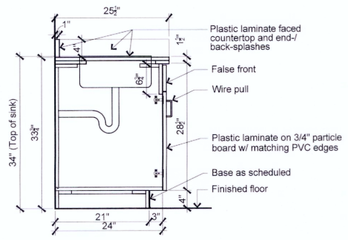
6 Section
Microwave Cabinet — Scale: 3/4" = 1'-0"



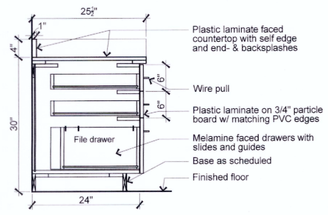
7 Section
Wall Cabinet — Scale: 3/4" = 1'-0"



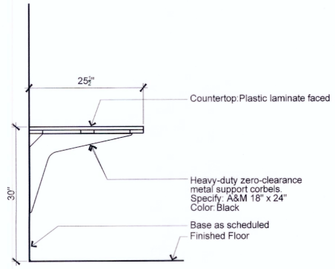
8 Section
Base Cabinet — Scale: 3/4" = 1'-0"



9 Section
Sink Base Cabinet — Scale: 3/4" = 1'-0"



10 Section
Box, Box, File Cabinet — Scale: 3/4" = 1'-0"



11 Section
Worksurface — Scale: 3/4" = 1'-0"

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

TPS
TENANT PLANNING SERVICES
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Denver, Colorado 80264
(303) 861-4800
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www.TPS.design

1444 South Potomac
1444 South Potomac
Aurora, CO 80012
Suite 200

STATE OF COLORADO
ROBERT J. KLAP
B-3282
LICENSED ARCHITECT
9/5/18

Cardiovascular and Thoracic Surgeons

Dates of Record
Project Start Date: 30 March 2018

Issued On	Issued For
30 August 2018	Tenant Review & Approval: and Construction

Sheet Contents: Millwork Elevations, Section Details

Project #	Proj Mgr	Designed by	Drafted by	Checked by
428008.00	GBS	MH	MH	GBS

A3.2
RSN: 1319864
Permit #: 18-1524209-LT

MECHANICAL GENERAL NOTES

GENERAL

SCOPE
THE INTENT OF THE SPECIFICATION AND THE DRAWINGS IS TO PROVIDE A COMPLETE AND FULLY OPERATIONAL MECHANICAL SYSTEM. THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO COMPLETE THE MECHANICAL WORK.

SITE EXAMINATION
THE MECHANICAL CONTRACTOR SHALL THOROUGHLY EXAMINE ALL AREAS WHERE EQUIPMENT, DUCTWORK, AND PIPING WILL BE INSTALLED AND WILL REPORT ANY CONDITION THAT, IN HIS OPINION, PREVENTS THE PROPER INSTALLATION OF THE MECHANICAL WORK.

STANDARDS
EQUIPMENT AND MATERIALS SHALL CONFORM WITH APPROPRIATE PROVISIONS OF ARI, ASME, ASTM, UL, NEMA, ANSI, SMACNA, ASHRAE, AND NFPA, AS APPLICABLE TO EACH INDIVIDUAL UNIT OR ASSEMBLY.

CODES
ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES. IN CASE OF CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATION AND THE CODES AND THE ORDINANCES, THE HIGHEST STANDARDS SHALL APPLY. THE MECHANICAL CONTRACTOR SHALL SATISFY CODE REQUIREMENTS AS A MINIMUM STANDARD WITHOUT ANY EXTRA COST TO OWNER/TENANT.

PERMITS AND FEES
THE MECHANICAL CONTRACTOR SHALL PROCURE AND PAY FOR ALL PERMITS, FEES AND INSPECTORS NECESSARY TO COMPLETE THE MECHANICAL WORK.

WARRANTY
THE MECHANICAL CONTRACTOR SHALL UNCONDITIONALLY WARRANT ALL WORK TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY OWNER/TENANT AND WILL REPAIR OR REPLACE ANY DEFECTIVE WORK PROMPTLY AND WITHOUT CHARGE AND RESTORE ANY OTHER EXISTING WORK DAMAGED IN THE COURSE OF REPAIRING DEFECTIVE MATERIAL AND WORKMANSHIP.

FILTERS
PROVIDE TWO (2) SETS OF PLEATED DISPOSABLE FILTERS. USE ONE SET UNTIL COMPLETION OF CONSTRUCTION. INSTALL ONE SET AT COMPLETION OF CONSTRUCTION. FILTERS TO BE FARR, OR SIMILAR.

DUCTWORK & ACCESSORIES

SHEETMETAL DUCTWORK
ALL DUCTWORK TO BE RIGID SHEETMETAL CONSTRUCTED FROM GALVANIZED SHEET STEEL IN ACCORDANCE WITH SMACNA 1" PRESSURE CLASS DUCT CONSTRUCTION STANDARDS. ALL EXPOSED DUCTWORK TO BE ROUND, SPIRAL, OR RECTANGULAR LOCK-SEAM TYPE, AS SHOWN ON HVAC PLAN. ASSEMBLE AND INSTALL DUCTWORK IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICE FOR ACHIEVING AIR TIGHT (5% LEAKAGE) AND NOISELESS (NO OBJECTIONABLE NOISE) SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE. FURNISH ALL REQUIRED DAMPERS, TRANSITIONS, CONNECTIONS TO AIR TERMINALS, AND OTHER ACCESSORIES NECESSARY FOR A COMPLETE OPERATING SYSTEM. NO VARIATION OF DUCT CONFIGURATION OR SIZES WILL BE PERMITTED EXCEPT BY PERMISSION FROM THE ENGINEER.

DUCT SEALANT
SEAL ALL CONCEALED LONGITUDINAL AND TRANSVERSE JOINTS WITH A NON-HARDENING, NON-MIGRATING MASTIC OR LIQUID ELASTIC SEALANT OF A TYPE RECOMMENDED BY THE MANUFACTURER FOR SEALING JOINTS AND SEAMS IN SHEET METAL DUCTWORK. COVER ALL FIELD JOINTS, JOINTS AROUND SPIN-IN FITTINGS AND FASTENING SCREWS WITH MASTIC. DO NOT SEAL EXPOSED DUCT.

SUPPORTS
PROVIDE HOT-DIPPED GALVANIZED STEEL FASTENERS, ANCHORS, RODS, STRAPS, TRIM, AND ANGLES FOR SUPPORT OF DUCTWORK.

DAMPERS
PROVIDE OPPOSED-BLADE, MULTI-LEAF VOLUME CONTROL DAMPERS WHERE INDICATED ON DRAWINGS AND AT POINTS ON LOW PRESSURE SUPPLY, RETURN AND EXHAUST DUCTS WHERE BRANCHES ARE TAKEN FROM LARGER DUCTS. PROVIDE UL LISTED FIRE DAMPERS WHERE REQUIRED AND IN ACCORDANCE WITH NFPA AND LOCAL CODES. PROVIDE CONVENIENTLY LOCATED ACCESS DOORS OF AMPLE SIZE AND QUANTITY FOR SERVICING THE DAMPERS.

GRILLES, REGISTERS, & DIFFUSERS
GRILLES, REGISTERS AND DIFFUSERS SHALL BE MANUFACTURED BY PRICE. DIFFUSERS SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS AND SCHEDULES. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS ITEMS NECESSARY FOR A COMPLETE AND PROPER INSTALLATION IN THE TYPE OF CEILING AND WALLS USED IN THIS PROJECT.

THERMAL INSULATION
PROVIDE EXTERNAL THERMAL INSULATION WITH AN INTEGRAL VAPOR BARRIER FACING OF SUFFICIENT THICKNESS TO PROVIDE R6 WHEN LOCATED IN UNCONDITIONED SPACE & R12 WHEN LOCATED OUTSIDE THE BUILDING. PROVIDE INSULATION ON EXHAUST AND OUTSIDE AIR DUCTS. DO NOT INSULATE EXPOSED DUCTWORK AND PORTIONS OF DUCTWORK THAT ARE INTERNALLY LINED. THERMAL INSULATION TO COMPLY WITH AN NFPA FLAME SPREAD OF 25 OR LESS, AND SMOKE DEVELOPED NO GREATER THAN 50.

ACOUSTICAL DUCT LINER
UNLESS OTHERWISE INDICATED ON THE PLANS, PROVIDE 1" GLASS FIBER ACOUSTICAL DUCT LINER ON SUPPLY AND RETURN DUCTWORK WITHIN 10 FEET OF THE DISCHARGE AND INTAKE OF AIR HANDLING UNITS. INCREASE DUCT SIZE INDICATED ON PLANS 2" IN EACH DIMENSION TO ACCOMMODATE LINER.

CONTROLS AND OPERATIONS

CONTROL WIRING
THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL CONTROL WIRING NECESSARY FOR THE COMPLETE AND PROPER OPERATING TEMPERATURE CONTROL SYSTEM.

CONTROLS
MOUNT ALL CONTROLS @ 48" ABOVE FINISH FLOOR. UNLESS OTHERWISE NOTED.

TESTING, ADJUSTING, AND BALANCING

TESTING, ADJUSTING, BALANCING
MECHANICAL CONTRACTOR OR AN INDEPENDENT NEBB OR AABC CERTIFIED AIR BALANCE CONTRACTOR SHALL ACCURATELY BALANCE THE AIR SYSTEM TO PROVIDE AIR QUANTITIES INDICATED ON THE DRAWINGS AND IN THE SPECIFICATION. OPERATE AUTOMATIC CONTROLS SYSTEM AND VERIFY SET POINTS DURING BALANCING. SUBMIT TWO (2) COPIES OF THE BALANCE REPORT TO THE ENGINEER FOR APPROVAL. INCLUDE A COPY OF THE BALANCE REPORT AS APPROVED BY THE ENGINEER WITH APPLICATION FOR FINAL CONTRACT PAYMENT.

LEGEND

- DIFFUSER, SEE SCHEDULE
- GRILLE, SEE SCHEDULE
- NEW RIGID RECTANGULAR DUCTWORK
- EXISTING RIGID RECTANGULAR DUCTWORK
- NEW RIGID ROUND DUCTWORK
- EXISTING RIGID ROUND DUCTWORK
- EXPOSED SPIRAL DUCTWORK
- DUCTWORK TO BE REMOVED
- FLEX, DUCTWORK.
- (T) THERMOSTAT TO MATCH EQUIPMENT
- (200) CFM, BALANCE WITHIN 10%
- (M-1) EQUIPMENT DESIGNATION
- SPIN-IN WITH DAMPER
- RETURN AIR ARROW
- SUPPLY AIR ARROW
- CONNECT TO EXISTING

Room Schedule

200	Waiting		----
201	Reception	221	Exam
202	Office	222	Hallway
203	Office	223	I.T.
204	Office	224	Break Room
205	Hallway	225	M.A. Station
206	Storage	226	Restroom
207	Office	227	Open Work Area
208	Office	228	M.A. Station
209	Hallway	229	Storage
----	----	----	----
211	Office	231	Restroom
212	Office	232	Procedure
213	Office	233	Storage
214	Exam	234	Hallway
215	Exam	235	Hallway
216	Exam	236	Exam
217	Exam	237	Exam
218	Exam	238	Vitals
219	Exam	239	Office

FAN TERMINAL UNIT SCHEDULE

MARK	MFR. & MODEL NUMBER	AIR INLET SIZE	PRIMARY AIR		HEATING			FAN MOTOR			MCA	MAX FUSE	REMARKS
			MAX. CFM	MIN. CFM	VOLTAGE	KW	HEATING CFM	VOLTAGE	HP	FLA			
FTU-2-10	KRUEGER QFV-2-08	8"	660	175	277/1	4.0	660	277/1	1/10	0.7	18.9	20	1
FTU-2-11	KRUEGER QFV-2-08	8"	660	175	277/1	4.0	660	277/1	1/10	0.7	18.9	20	1
FTU-2-12	ENVIROTEC VFREH	10"	910	180	277/1	6.0	900	277/1	1/4	-	29.4	30	1
FTU-2-14	KRUEGER QFV-2-08	8"	530	115	-	-	-	120/1	1/10	1.6	2	15	1

NOTES:
1. EXISTING TO REMAIN.

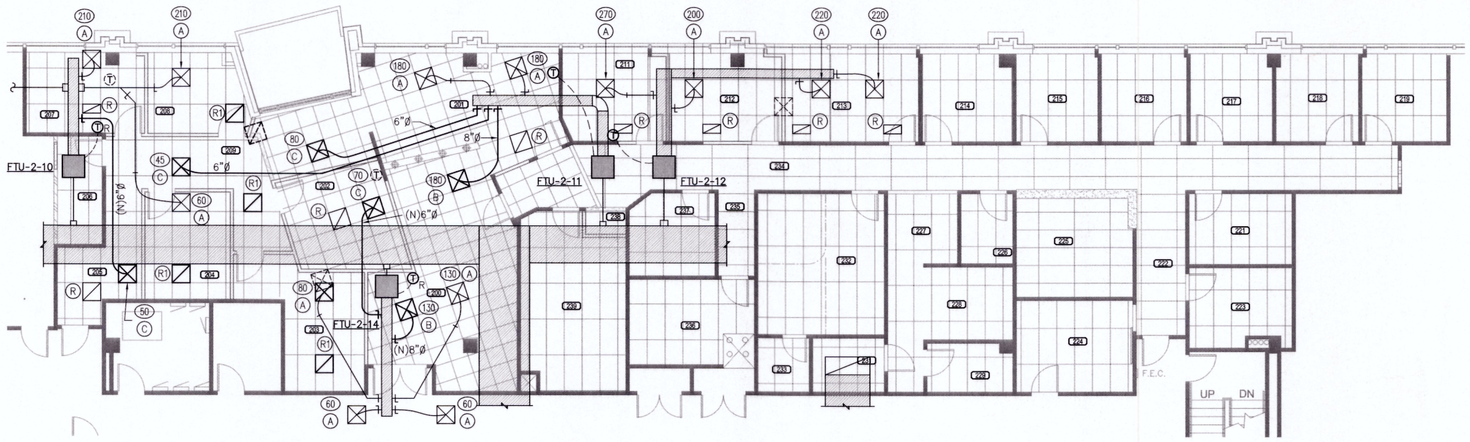
OUTSIDE AIR COMPLIANCE

ROOM NUMBER	DESCRIPTION	AREA SF	PEOPLE/1000SF	POPULATION	CFM/PERSON	AREA AIRFLOW RATE	Ez	REQUIRED OUTSIDE AIR CFM	SUPPLY AIR	% OUTSIDE AIR	OUTSIDE AIR PROVIDED
200	WAITING	203	30	6	5.0	0.06	0.8	53	265	20%	53
201	RECEPTION	400	5	2	5.0	0.06	0.8	43	550	20%	110
202	OFFICE	135	5	1	5.0	0.06	0.8	14	70	20%	14

DIFFUSER SCHEDULE

MARK	SERVICE	FACE SIZE	NECK SIZE	FIRE DAMPER	VOLUME DAMPER	MFR	MODEL	REMARKS
A	SUPPLY	-	-	-	-	-	-	EXISTING TO REMAIN OR BE RELOCATED
B	SUPPLY	24" x 24"	8"Ø	NO	NO	PRICE	SCD	
C	SUPPLY	24" x 24"	6"Ø	NO	NO	PRICE	SCD	
R	RETURN	-	-	-	-	-	-	EXISTING TO REMAIN OR BE RELOCATED
R1	RETURN	24"x24"	22"x22"	NO	NO	PRICE	PFRF	

Provide proof of a flame spread less than 26 and a smoke development less than 50 for any material used in a plenum.
2015 IMC 602.2.1



1 M1.0 MECHANICAL PLAN
SCALE: 1/8" = 1'

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

BRIAN SEYFERTH & ASSOCIATES, INC.
PROFESSIONAL ENGINEER
5583 South Prince Street
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COLORADO REGISTERED BRIAN SEYFERTH 23978 9-4-18 PROFESSIONAL ENGINEER

Cardiovascular and Thoracic Surgeons

Dates of Record
Project Start Date: ##########

Issued On	Issued For
29 August 2018	Tenant's Review & Approval; and Construction

Sheet Contents	MECHANICAL PLAN
Project Team	CF/BS
Project Number	18394
Sheet Mark	M1.0

RSN: 1319864
Permit #: 18-1524209-LT

PLUMBING GENERAL NOTES

GENERAL

SCOPE
THE INTENT OF THE SPECIFICATION AND THE DRAWINGS IS TO PROVIDE A COMPLETE AND FULLY OPERATIONAL PLUMBING SYSTEM. THE PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO COMPLETE THE PLUMBING WORK.

SITE EXAMINATION
THE PLUMBING CONTRACTOR SHALL THOROUGHLY EXAMINE ALL AREAS WHERE FIXTURES, EQUIPMENT, AND PIPING WILL BE INSTALLED AND WILL REPORT ANY CONDITION THAT, IN HIS OPINION, PREVENTS THE PROPER INSTALLATION OF THE PLUMBING WORK.

STANDARDS
EQUIPMENT AND MATERIALS SHALL CONFORM WITH APPROPRIATE PROVISIONS OF ASME, ASTM, UL, NEMA, ANSI, ASHRAE, NFPA, AS APPLICABLE TO EACH INDIVIDUAL UNIT OR ASSEMBLY.

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PERMITS AND FEES
THE PLUMBING CONTRACTOR SHALL PROCURE AND PAY FOR ALL PERMITS, FEES AND INSPECTIONS NECESSARY TO COMPLETE THE PLUMBING WORK.

WARRANTY
THE PLUMBING CONTRACTOR SHALL UNCONDITIONALLY WARRANT ALL WORK TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY OWNER AND WILL REPAIR OR REPLACE ANY DEFECTIVE WORK PROMPTLY AND WITHOUT CHARGE AND RESTORE ANY OTHER EXISTING WORK DAMAGED IN THE COURSE OF REPAIRING DEFECTIVE MATERIALS AND WORKMANSHIP.

PIPING

SOIL, WASTE AND VENT PIPING
SOIL, WASTE AND VENT PIPING 10" AND SMALLER SHALL BE SERVICE WEIGHT, HUBLESS, CAST IRON PIPE AND FITTINGS CONFORMING WITH THE REQUIREMENTS OF CISPI STD 301, ASTM A888 OR ASTM A74, WITH NEOPRENE GASKET AND STAINLESS STEEL SHIELD AND CLAMP. PROVIDE HUB-TYPE PIPE AND FITTINGS BELOW GRADE WHERE REQUIRED BY LOCAL CODES. PIPE AND FITTINGS SHALL BE MARKED WITH THE CISPI TRADEMARK. HORIZONTAL RUNS SHALL DRAIN AT A GRADE OF 1/4 INCH PER FOOT WHERE POSSIBLE BUT IN NO CASE LESS THAN 1/8" PER FOOT. COORDINATE WITH LOCAL AUTHORITIES FOR DRAINAGE REQUIREMENTS FOR EQUIPMENT DESIGNATED WITH INDIRECT WASTE TO FLOOR DRAINS. PROVIDE PIPED DRAIN TO SANITARY IF REQUIRED BY LOCAL JURISDICTION.

DOMESTIC WATER PIPING
DOMESTIC WATER PIPING 2" AND SMALLER SHALL BE COPPER TUBE WITH WROUGHT COPPER SWEAT FITTINGS JOINED WITH LEAD FREE SOLDER. PROVIDE TYPE "L" COPPER TUBE ABOVE GRADE AND TYPE "K" BELOW GRADE.

HANGERS & SUPPORTS
THE PLUMBING CONTRACTOR SHALL FURNISH ALL PIPE SUPPORTS REQUIRED FOR HIS EQUIPMENT AND MATERIAL. HANGERS AND PIPE ATTACHMENTS TO BE FACTORY FABRICATED WITH GALVANIZED COATINGS; NONMETALLIC COATED FOR HANGERS IN DIRECT CONTACT WITH COPPER TUBING.

CONNECTIONS
INSTALL UNIONS ADJACENT TO EACH VALVE AND AT FINAL CONNECTION TO EACH PIECE OF EQUIPMENT. INSTALL DIELECTRIC COUPLINGS TO CONNECT PIPING MATERIALS OF DISSIMILAR METALS. SCREW JOINT STEEL PIPING UP TO AND INCLUDING 1-1/2". WELD PIPING USE LEAD FREE SOLDER FOR SOLDERING DOMESTIC WATER COPPER PIPE.

CLEANOUTS
PROVIDE J.R. SMITH OR EQUIVALENT FLOOR AND WALL CLEANOUTS AS INDICATED ON THE DRAWINGS OR WHERE REQUIRED IN ALL SOIL, WASTE, AND DRAIN LINES. IN AREAS WITH CERAMIC TILE OR CARPETED FLOORING, PROVIDE CLEANOUTS WITH SQUARE, ADJUSTABLE, NICKEL BRONZE TOP. IN AREAS WITH RESILIENT FLOORING, PROVIDE CLEANOUTS WITH SQUARE, ADJUSTABLE, NICKEL BRONZE TOP WITH TILE RECESS. CLEANOUTS SHALL BE SAME SIZE AS PIPE EXCEPT THAT CLEANOUTS LARGER THAN 4" WILL NOT BE REQUIRED. WHERE CLEANOUTS OCCUR IN WALLS OF FINISHED AREAS, THEY SHALL BE CONCEALED BEHIND CHROME PLATED ACCESS COVERS.

INSTALLATION
INSTALL PIPING FREE OF SAGS AND BENDS. INSTALL FITTINGS FOR CHANGES IN DIRECTION AND BRANCH CONNECTIONS. INSTALL SLEEVES FOR PIPES PASSING THROUGH CONCRETE AND MASONRY WALLS, GYPSUM-BOARD PARTITIONS, CONCRETE FLOOR, AND ROOF SLABS. SEAL PIPE PENETRATIONS THROUGH RATED CONSTRUCTION WITH FIRESTOPPING SEALANT MATERIAL. UNDERGROUND WATER AND SEWER LINES SHALL BE LAID IN SEPARATE TRENCHES WITH A MINIMUM HORIZONTAL SPACING AS REQUIRED BY CODE, EXCAVATED TO THE PROPER DEPTH AND GRADED TO PRODUCE THE REQUIRED FALL.

TESTING
ALL PIPES SHALL BE TESTED BY AN APPROVED METHOD BEFORE THEY ARE BACKFILLED OR CONCEALED.

VALVES

GENERAL
PLUMBING CONTRACTOR TO PROVIDE VALVES WHERE INDICATED ON PLANS AND AS NECESSARY FOR PROPER SYSTEM OPERATION AND COMPONENT ISOLATION. INSTALL VALVES FOR EACH FIXTURE AND ITEM OF EQUIPMENT. PROVIDE BRAIDED STAINLESS STEEL HOSE (UNLESS OTHERWISE NOTED) BETWEEN VALVE AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. LOCATE SHUT-OFF VALVES ADJACENT TO EQUIPMENT FOR EASY ACCESS SUCH THAT VALVES CAN BE REACHED WITHOUT MOVING EQUIPMENT.

VALVES
PROVIDE VALVES FOR WORKING PRESSURE IN WATER PIPING OF 125 PSI OR GREATER.

INSULATION

WATER PIPING
PROVIDE THERMAL INSULATION ON ALL HOT & COLD WATER PIPING. USE SELF-SEALING CLOSED CELL FOAM OR JACKETED FIBERGLASS INSULATION WITH MANUFACTURER APPROVED ADHESIVES, SEALERS, AND COATINGS. ALL MATERIALS USED SHALL NOT EXCEED 25 FOR FLAME SPREAD, 50 FOR FUEL CONTRIBUTED, OR 50 FOR SMOKE DEVELOPED.

SAFETY COVERS
INSTALL NO-SCALD SAFETY COVERS WITH INSULATED FOAM LINER AND TAMPER PROOF STRAP AT ALL EXPOSED HOT WATER & WASTE PIPING.

MISC PLUMBING FIXTURES

OWNER FURNISHED CONTRACTOR INSTALLED
PLUMBING FIXTURES/EQUIPMENT

THE PLUMBING CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO EQUIPMENT INCLUDING REQUIRED MATERIAL SUCH AS PIPING, VALVES, FILTERS, TRAPS, CHECKS VALVES, VACUUM BREAKERS, AND FLEXIBLE AND RIGID TUBING.

WATER HEATER
PROVIDE HEAT TRAPS ON WATER HEATER SUPPLY AND DISCHARGE.

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	CW	HW	TW	W	REMARKS
P100	WATER CLOSET	AMERICAN STANDARD	211AA.104	1/2"			3"	COLOR WHITE, W OPEN SEAT, 17" FLOOD RIM
P103	LAVATORY	KOHLER	K-2005				1 1/4"	COLOR WHITE
P104	LAVATORY FAUCET	DELTA	501DST	1/2"		1/2"		
P105	BREAK ROOM SINK	ELKAY	LRAD2521				2"	PROVIDE IN-SINK-ERATOR DISPOSER BADGER V, 1/2 HP
P106	SINK FAUCET	DELTA	400LF-HDF	1/2"	1/2"			
P114	BELOW SINK TEMPERING VALVE	WATTS	LFUSG-B	1/2"	1/2"	1/2"		
P129	WATER ROUGH-IN BOX	IPS WATERTITE	AB9700HA	3/8"				W/ HAMMER ARRESTOR. PROVIDE ASSE 1022 BACKFLOW PREVENTER

The dry vent must rise 6" vertically above the flood level rim of the highest trapped fixture being vented.
2015 IPC 905.4

MINIMUM HYDRONIC & DOMESTIC HOT WATER PIPE INSULATION THICKNESS (IN INCHES)

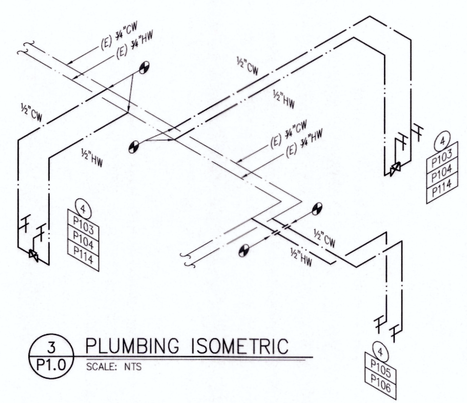
FLUID OPERATING TEMPERATURE RANGE AND USAGE (°F)	INSULATION CONDUCTIVITY		NOMINAL PIPE OR TUBE SIZE (INCHES)				
	CONDUCTIVITY BTU - IN./(H - FT² - °F)[B]	MEAN RATING TEMPERATURE, °F	1	1 TO < 1-1/2	1-1/2 TO < 4	4 TO < 8	≥ 8
201 -250	0.27 - 0.30	150	2.5	2.5	2.5	3.0	3.0
141 - 200	0.25 - 0.29	125	1.5	1.5	2.0	2.0	2.0
105 - 140	0.21 - 0.28	100	1.0	1.0	1.5	1.5	1.5
40 - 60	0.21 - 0.27	75	0.5	0.5	1.0	1.0	1.0

PLUMBING SYMBOLS LEGEND

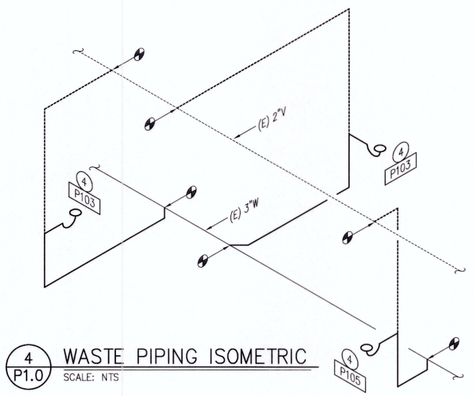
- WASTE PIPING
- VENT PIPING
- COLD WATER PIPING
- HOT WATER PIPING
- G — GAS PIPING
- BALL VALVE
- HOSE BIBB
- WCO — WALL CLEANOUT
- FLOOR CLEANOUT
- FLOOR DRAIN
- CONNECT TO EXISTING

Room Schedule

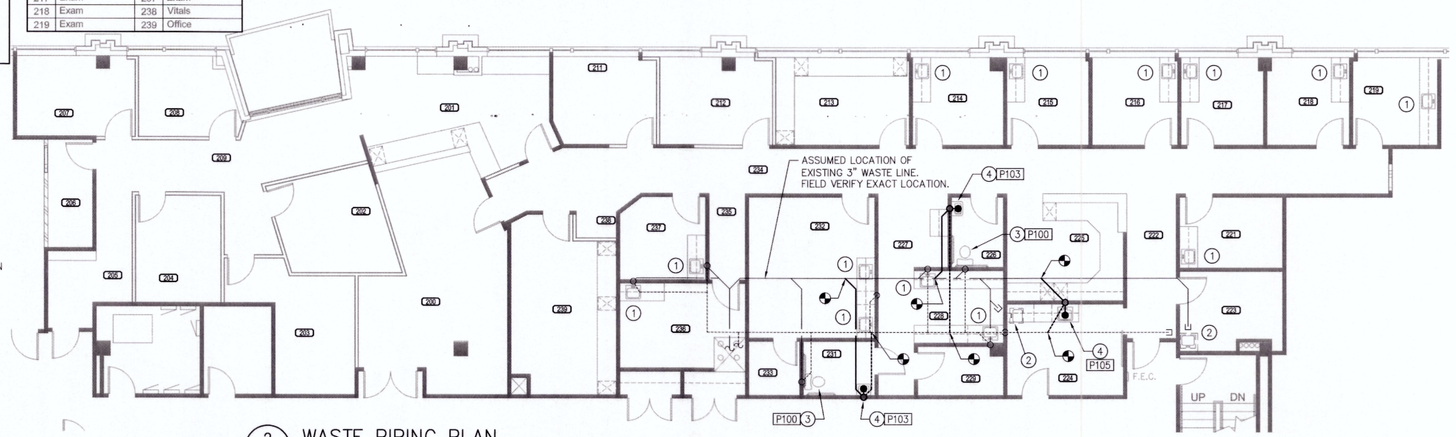
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208	Office	228	M.A. Station
209	Hallway	229	Storage
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211	Office	231	Restroom
212	Office	232	Procedure
213	Office	233	Storage
214	Exam	234	Hallway
215	Exam	235	Hallway
216	Exam	236	Exam
217	Exam	237	Exam
218	Exam	238	Vitals
219	Exam	239	Office



3 P1.0 PLUMBING ISOMETRIC
SCALE: NTS



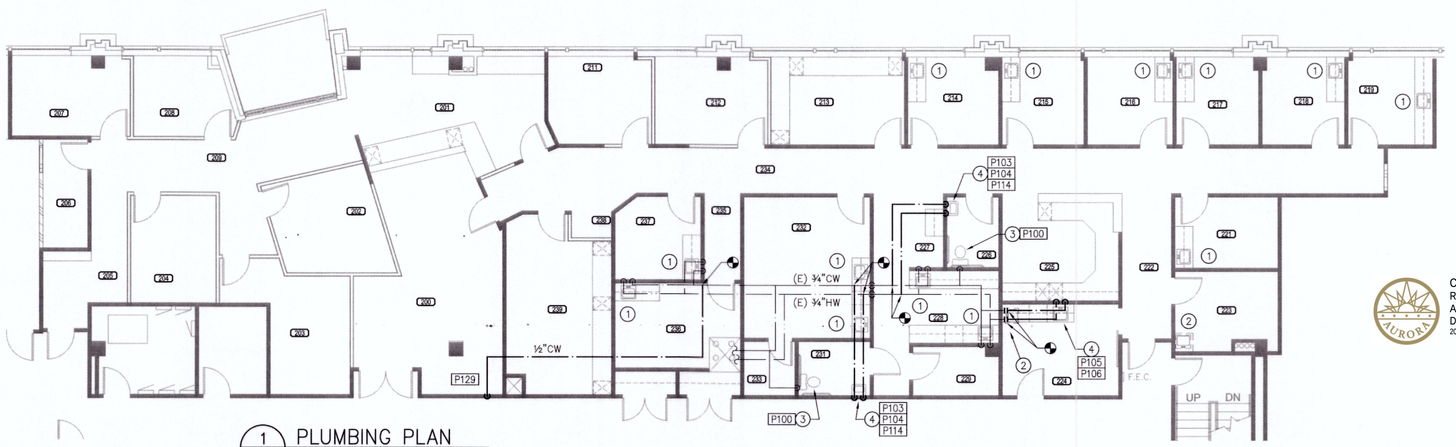
4 P1.0 WASTE PIPING ISOMETRIC
SCALE: NTS



WASTE PIPING PLAN NOTES:

1. EXISTING PLUMBING FIXTURE TO BE RESET IN NEW MILLWORK.
2. DEMO EXISTING SINK. CAP PIPING
3. REMOVE EXISTING WATER CLOSET AND REPLACE WITH NEW.
4. 2"W AND 2"V TO NEW SINK.

2 P1.0 WASTE PIPING PLAN
SCALE: 1/8" = 1'



PLUMBING PLAN NOTES:

1. EXISTING PLUMBING FIXTURE TO BE RESET IN NEW MILLWORK.
2. DEMO EXISTING SINK. CAP PIPING
3. REMOVE EXISTING WATER CLOSET AND REPLACE WITH NEW.
4. ½" HW AND CW TO NEW SINK.

1 P1.0 PLUMBING PLAN
SCALE: 1/8" = 1'

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Dates of Record
Project Start Date: 8/24/18

Issued On	Issued For
29 August 2018	Tenant's Review & Approval; and Construction

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Approved as Noted: jlocke
Date: Sep 20, 2018
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Sheet Contents	PLUMBING PLAN
Project Team	CF/BS
Project Number	18394
Sheet Mark	**P1.0**

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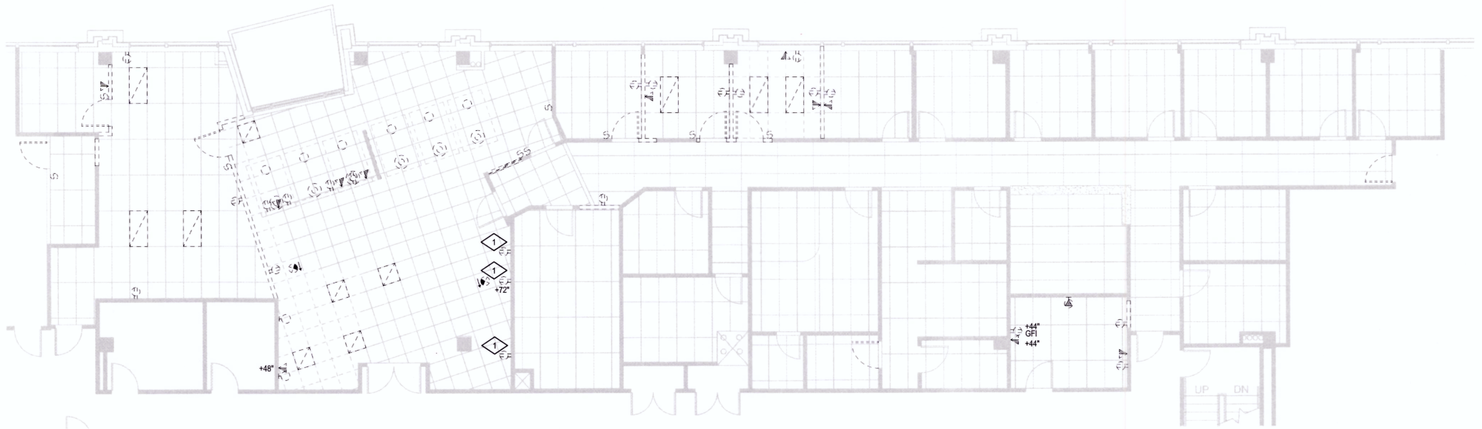
ELECTRICAL GENERAL NOTES - APPLICABLE TO ALL ELECTRICAL SHEETS

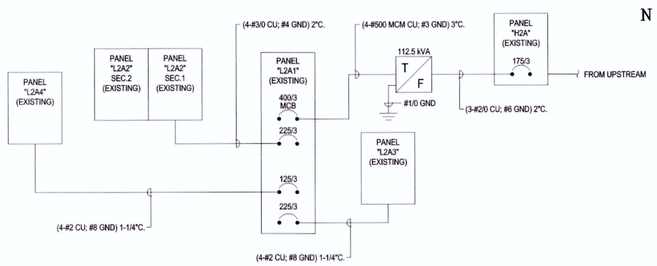
1. PRIOR TO SUBMITTING BIDS THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING ELECTRICAL EQUIPMENT CONDITIONS AND DIFFICULTIES THAT WILL AFFECT EXECUTION OF THE WORK. FIELD VERIFY QUANTITIES OF EXISTING LIGHT FIXTURES, ELECTRICAL DEVICES, COMMUNICATION DEVICES, FIRE ALARM DEVICES, AND ELECTRICAL EQUIPMENT. NOTIFY THE ARCHITECT AND ENGINEER OF ANY EXISTING CONDITIONS WHICH MODIFY THE SCOPE OF WORK AS SHOWN ON THE CONSTRUCTION DOCUMENTS. SUBMISSION OF A BID PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR MOBILIZATION, LABOR, EQUIPMENT, AND/OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED.
2. THE ELECTRICAL CONTRACTOR SHALL EXAMINE THE DRAWINGS OF ALL TRADES WHOSE WORK RELATES TO OR IS DEPENDENT ON ELECTRICAL WORK TO BECOME FULLY INFORMED OF THE EXTENT AND CHARACTER OF THEIR SPECIFIED WORK AND BE ABLE TO COORDINATE IT WHILE AVOIDING POSSIBLE INTERFERENCE WITH THE ELECTRICAL WORK.
3. IT IS THE INTENTION OF THESE SPECIFICATIONS AND DRAWINGS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION. WHEREVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN "FURNISH AND INSTALL COMPLETE AND READY FOR USE." "REPLACE" SHALL MEAN TO PUT NEW IN PLACE OF EXISTING. THE ARCHITECTURAL GENERAL AND SPECIAL CONDITIONS FOR THE WORK OF THIS PROJECT AND BASE BUILDING SPECIFICATIONS SHALL BE PART OF THE ELECTRICAL SPECIFICATIONS. THE ELECTRICAL CONTRACTOR SHALL EXAMINE THE GENERAL AND SPECIAL CONDITIONS BEFORE SUBMITTING A BID.
4. ALONGSIDE SUBMISSION OF THE BID, THE ELECTRICAL CONTRACTOR SHALL GIVE WRITTEN NOTICE TO THE ARCHITECT/ENGINEER OF ANY NECESSARY ITEMS OR WORK THAT HAVE BEEN OMITTED FROM THE DRAWINGS OR SPECIFICATIONS. IN THE ABSENCE OF SUCH WRITTEN NOTICE, IT IS MUTUALLY AGREED THAT THE ELECTRICAL CONTRACTOR HAS INCLUDED THE COST OF ALL REQUIRED ITEMS IN HIS BID, AND THAT THE ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR THE APPROVED SATISFACTORY FUNCTIONING OF THE ENTIRE SYSTEM WITHOUT EXTRA COMPENSATION.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE AND SATISFACTORY ELECTRICAL INSTALLATION IN ACCORDANCE WITH THE TRUE INTENT OF THE DRAWINGS AND SPECIFICATIONS. HE SHALL PROVIDE, WITHOUT EXTRA CHARGE, ALL INCIDENTAL ITEMS REQUIRED, AS A PART OF THIS ELECTRICAL INSTALLATION. THE INSTALLATION SHALL BE SO MADE THAT ITS SEVERAL COMPONENT PARTS WILL FUNCTION TOGETHER AS A WORKABLE SYSTEM AND SHALL BE LEFT WITH ALL PARTS ADJUSTED AND IN WORKING ORDER.
6. ELECTRICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LOCAL FEES, PERMITS, AND SERVICES OF INSPECTION AUTHORITIES REQUIRED BY ELECTRICAL WORK FOR THIS ELECTRICAL CONSTRUCTION. FILE ALL NECESSARY PLANS, PREPARE ALL DOCUMENTS, AND OBTAIN ALL NECESSARY APPROVALS REQUIRED BY ALL GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL REMAIN EXPOSED TO VIEW UNTIL APPROVED BY THE INSPECTION AUTHORITY.
7. ELECTRICAL CONTRACTOR SHALL FULLY COORDINATE WITH OWNER REPRESENTATIVES. ALL ELECTRICAL WORK PERFORMED UNDER THIS CONTRACT SHALL CONFORM WITH LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE, INTERNATIONAL BUILDING CODE, LOCAL BUILDING AND FIRE DEPARTMENT REQUIREMENTS. PERFORM WORK IN ACCORDANCE WITH REQUIREMENTS OF OWNER REPRESENTATIVE.
8. ELECTRICAL CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER OF ANY CHANGES REQUIRED BY THE BUILDING MANAGEMENT AND TENANT REPRESENTATIVES.
9. BEFORE STARTING WORK, ELECTRICAL CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ARCHITECT/ENGINEER FIVE (5) SETS OF SHOP DRAWINGS, BROCHURES, INSTALLATION INSTRUCTIONS, AND DESCRIPTIVE EQUIPMENT DATA RELATED TO SPECIFIED EQUIPMENT, WIRING DEVICES, AND ACCESSORIES FOR APPROVAL. ELECTRONIC SUBMITTALS (PDF OR SIMILAR) ARE ACCEPTABLE WITH PRIOR APPROVAL FROM THE ARCHITECT. THE CONTRACTOR SHALL IDENTIFY ANY "LONG LEAD TIME" ITEMS WHICH MAY IMPACT THE OVERALL PROJECT SCHEDULE. ALL BIDS SHALL INCLUDE COSTS ASSOCIATED WITH THE PURCHASE AND DELIVERY OF EQUIPMENT TO MEET THE PROJECT SCHEDULE. NO EQUIPMENT SHALL BE ORDERED, PURCHASED, OR INSTALLED PRIOR TO THE APPROVAL OF SHOP DRAWINGS, BROCHURES, INSTALLATION INSTRUCTIONS, AND SCHEDULES. APPROVAL BY THE ARCHITECT/ENGINEER IS INTENDED TO ESTABLISH CONFORMANCE WITH THE PROJECT DESIGN CONCEPT AND THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.
10. THE NAMING OF THE MANUFACTURER OR BRAND WITH CATALOG NUMBER OR OTHER PRODUCT IDENTIFICATION WITHOUT THE WORDS "OR EQUAL" IN THE SPECIFICATIONS OR NOTES SHALL INDICATE THAT IT IS THE ONLY PRODUCT APPROVED FOR PURCHASE. IF THE WORDS "OR EQUAL" ARE USED THEY SHALL BE INTERPRETED AS ESTABLISHING A QUALITY OR PERFORMANCE STANDARD FOR THE MATERIAL OR PRODUCT TO BE PURCHASED. THIS SHALL INDICATE THAT THE ELECTRICAL CONTRACTOR IS NOT RESTRICTED TO THE USE OF THE NAMED AND IDENTIFIED PRODUCT IF A SUBSTITUTE APPROVED BY THE ARCHITECT/ENGINEER IS AVAILABLE. HOWEVER, WHERE A SUBSTITUTION IS REQUESTED, IT WILL BE PERMITTED ONLY WITH THE WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER. NO SUBSTITUTE MATERIAL OR PRODUCT SHALL BE ORDERED, FABRICATED, SHIPPED OR PROCESSED IN ANY MATTER PRIOR TO THE APPROVAL OF THE ARCHITECT/ENGINEER. THE ELECTRICAL CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ADDITIONAL EXPENSES AS REQUIRED MAKING CHANGES FROM THE ORIGINAL MATERIAL OR PRODUCT SPECIFIED.
11. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF ELECTRICAL WORK. LOCATIONS ARE APPROXIMATE AND SHALL BE SUBJECT TO MINOR MODIFICATIONS AS DIRECTED BY THE GENERAL CONTRACTOR AND OWNER REPRESENTATIVES. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXACT FITTING OF ALL MATERIALS, EQUIPMENT, ETC., IN THE BUILDING AND TENANT SPACE. ALL DIMENSIONS SHALL BE VERIFIED ON THE JOB.
12. DRAWINGS SHALL NOT BE SCALED FOR ROUGH-IN MEASUREMENTS OR USED AS SHOP DRAWINGS, WHERE DIMENSIONS ARE SHOWN ON PLANS OR DETAILS, THESE DIMENSIONS ARE TO BE FIELD-VERIFIED BY THE ELECTRICAL CONTRACTOR AGAINST EXISTING FIELD CONDITIONS, INSTALLATION REQUIREMENTS OF OTHER TRADES, AND THE MANUFACTURER'S SUBMITTALS FOR EQUIPMENT TO BE INSTALLED. SHOULD ANY CONFLICTS ARISE WHICH CANNOT BE EASILY RESOLVED IN THE FIELD WITHOUT CHANGING THE DESIGN INTENT, THE ELECTRICAL CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
13. WHILE ALL WORK IS IN PROGRESS, EXCEPT FOR SHORT DESIGNATED INTERVALS DURING WHICH CONNECTIONS ARE TO BE MADE, CONTINUITY OF SERVICE TO ALL EXISTING SYSTEMS SERVING OCCUPIED SPACES SHALL BE MAINTAINED. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH OWNER AT ALL TIMES FOR ALL NEW-TO-EXISTING CONNECTIONS, SYSTEM SHUTDOWNS, AND RESTART-UP.
14. ANY WORK WHICH WILL AFFECT THE BUILDING OCCUPANTS, INCLUDING, BUT NOT LIMITED TO WORK WHICH GENERATES EXCESSIVE NOISE, DUST, SMOKE, OR INCONVENIENCE TO BUILDING OCCUPANTS, SHALL BE PERFORMED AFTER BUSINESS HOURS. UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE BUILDING MANAGER OR OWNER.
15. ELECTRICAL ITEMS AFFECTED BY REMODEL WORK ARE SHOWN ON DRAWINGS ALONG WITH EXISTING ELECTRICAL INSTALLATION SHOWN WITH LIGHT LINE WEIGHT. EXISTING ELECTRICAL INSTALLATION SHOWN IS NOT NECESSARILY ALL-INCLUSIVE. RETAIN CIRCUIT CONTINUITY FOR EXISTING ELECTRICAL EQUIPMENT, FIXTURES, AND DEVICES THAT ARE TO REMAIN. SUCH EQUIPMENT SHALL BE RECONNECTED TO EXISTING CIRCUITS OR CONNECTED TO NEW CIRCUIT(S) AS INDICATED ON DRAWINGS. ENSURE ALL ELECTRICAL DEVICES IN WORK AREA ARE FULLY FUNCTIONAL. FOR DEVICES OR JUNCTION BOXES LOCATED IN WALLS, THAT MUST REMAIN IN PLACE FOR CIRCUIT CONTINUITY, PROVIDE BLANK COVER PLATES TO MATCH WALL PLATES STYLE IN THE AREA OF WORK. FOR ALL OTHER UNUSED JUNCTION BOXES, REMOVE WIRING AND PROVIDE BLANK COVER PLATE, OR COORDINATE WITH GENERAL CONTRACTOR FOR PATCHING OF WALL TO MATCH ADJACENT SURFACE AS DIRECTED BY ARCHITECT. WHERE EXISTING DEVICES CONFLICT WITH NEW WALL CONSTRUCTION, RELOCATE EXISTING DEVICE AND REWORK CIRCUITRY AS REQUIRED TO MAINTAIN CIRCUIT CONTINUITY. DEVICES MAY ONLY BE REMOVED WITH PRIOR APPROVAL FROM THE DESIGN TEAM AND BUILDING MANAGEMENT. COORDINATE FINAL DIRECTIONS WITH ARCHITECT PRIOR TO DEMOLITION.
16. REPORT ANY EXISTING DAMAGED EQUIPMENT OR SYSTEMS TO THE OWNER PRIOR TO BEGINNING THE PROJECT.
17. BEFORE ANY EQUIPMENT IS INSTALLED, DETERMINE THAT SAID EQUIPMENT WILL PROPERLY FIT WITHIN THE SPACE ALLOCATED. INSTALL ALL EQUIPMENT AND MATERIALS IN SUCH A MANNER AS TO PROVIDE REQUIRED ACCESS FOR SERVICING AND MAINTENANCE. ALLOW AMPLE SPACE FOR REMOVAL OF ALL PARTS THAT REQUIRE REPLACEMENT OR SERVICING.
18. MINIMUM WORKING CLEARANCES PER THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE SHALL BE PROVIDED AROUND AND IN FRONT OF ALL ELECTRICAL EQUIPMENT.
19. ALL CIRCUIT BREAKER LUGS SHALL BE RATED FOR A MINIMUM OF 75 DEGREES CELSIUS.
20. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, UNDAMAGED, BEAR THE UL LABEL WHERE APPLICABLE, AND BE AS SPECIFIED PER USE IN EACH SPECIFIC LOCATION. ANY INCIDENTAL ACCESSORIES NECESSARY TO COMPLETE THE WORK IN ALL RESPECTS AND MAKE IT READY FOR OPERATION, EVEN IF NOT SPECIFICALLY SPECIFIED, SHALL BE FURNISHED, DELIVERED, AND INSTALLED BY THE ELECTRICAL CONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE CLIENT.
21. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF A SYSTEM OR EQUIPMENT, SHALL BE INCLUDED IN THE ELECTRICAL CONTRACTOR'S ESTIMATE, AS IF SPECIFIED HEREIN OR SHOWN.
22. ALL NEW, RELOCATED AND EXISTING MATERIALS, IN CEILING PLENUMS NOT ENCLOSED IN CONDUIT SHALL HAVE CLASS, FLAME SPREAD AND SMOKE DEVELOPMENT RATINGS AS REQUIRED FOR USE IN OPEN PLENUMS. REMOVE AND REPLACE ALL EXISTING MATERIALS IN WORK AREA NOT IN COMPLIANCE.
23. COORDINATE THE INSTALLATION OF ELECTRICAL MATERIALS AND EQUIPMENT ABOVE AND BELOW CEILINGS WITH SUSPENSION SYSTEM, MECHANICAL EQUIPMENT, AND OTHER BUILDING COMPONENTS. ARRANGE SUPPORTS SO THAT THEY ARE NOT TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE CEILING CAVITY SPACE CAREFULLY WITH ALL TRADES.
24. NEUTRALS, RACEWAYS, AND NON-CURRENT CARRYING PARTS OF ELECTRICAL EQUIPMENT AND ASSOCIATED ENCLOSURES SHALL BE GROUNDED IN FULL ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. PROVIDE HARD WIRE GROUND CONNECTIONS TO ALL DEVICES AND SEPARATE, CONTINUOUS, INSULATED GROUND WIRE IN EACH CIRCUIT (#12 CU MINIMUM "GREEN" TRACER GROUND). COORDINATE EQUIPMENT GROUNDING CONDUCTOR WIRE SIZE WITH MANUFACTURER REQUIREMENTS.
25. CONDUIT JOINTS SHALL BE CUT SQUARE, THREADED, REAMED SMOOTH, AND DRAWN UP TIGHT. BENDS OR OFFSETS SHALL BE MADE WITH AN APPROVED BENDER OR HICKEY, OR HUB-TYPE CONDUIT FITTINGS. THE NUMBER OF BENDS PER RUN SHALL CONFORM TO THOSE STATED IN CURRENT NEC.
26. WHERE POSSIBLE ALL WIRING SHALL BE RUN CONCEALED. ALL HOME RUNS SHALL BE EMT. CONCEALED CONDUIT SYSTEMS SHALL BE RUN IN A DIRECT LINE WITH LONG SWEEP BENDS AND AND OFFSETS. EXPOSED CONDUIT RUNS SHALL BE PARALLEL TO AND AT RIGHT ANGLES TO BUILDING LINES, USING CONDUIT FITTINGS FOR ALL TURNS AND OFFSETS. ALL EMPTY CONDUITS SHALL BE SUPPLIED WITH PULL WIRES AND BUSHINGS.
27. "MC" AND "AC" TYPE CABLE WITH INTERNAL GROUND WIRES SHALL BE PERMITTED FOR BRANCH CIRCUIT WIRING WHERE APPROVED IN WRITING BY BUILDING MANAGEMENT AND THE LOCAL AHJ ONLY AND INSTALLED PER NATIONAL ELECTRICAL CODE AND LOCAL BUILDING DEPARTMENT REQUIREMENTS. USE LISTED AND APPROVED CONNECTORS AND COUPLINGS AND PROVIDE CONDUIT SUPPORTS AS REQUIRED BY THE NATIONAL ELECTRICAL CODE AS A MINIMUM.
28. ALL ROOF PENETRATIONS SHALL BE SEALED WATER TIGHT, PROVIDE FLASHING AND COUNTER FLASHING AS REQUIRED. COORDINATE ROOFING WORK WITH THE GENERAL CONTRACTOR.
29. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL JUNCTION AND PULL BOXES TO PROVIDE ACCESS POINTS FOR PULLING AND FEEDING CONDUCTORS INTO A RACEWAY SYSTEM. JUNCTION AND PULL BOXES AND THEIR COVERS SHALL BE FORMED FROM SHEET STEEL AND SHALL BE FINISHED IN GRAY ENAMEL PAINT. BOXES SHALL BE IN INDUSTRY STANDARD SIZES. OUTLET BOXES WITH THE CORRECT FITTING FOR THE APPLICATION SHALL BE LOCATED AT EACH CONDUCTOR SPLICE POINT, AT EACH OUTLET, SWITCH POINT, OR JUNCTION POINT, AND AT EACH PULL POINT FOR THE CONNECTION OF CONDUIT AND OTHER RACEWAYS. OUTLET BOXES FOR CONCEALED WIRING SHALL BE MADE FROM GALVANIZED OR CADMIUM-PLATED SHEET STEEL, AND THEY SHALL HAVE A DEPTH OF AT LEAST 1.5 INCHES, WHETHER SINGLE OR GANGED. THE BOXES SHALL BE LARGE ENOUGH SIZE TO ACCOMMODATE THE NUMBER OF WIRING DEVICES AND CONDUCTORS AS SPECIFIED IN THE FILL SCHEDULE OF THE CURRENT NEC. SECURE BOXES WITH MOUNTING BRACKET, BRACES, HANGER OR BOX MOUNTING SUPPORT.
30. ALL NEW SWITCHES, POWER OUTLETS, TELEPHONE OUTLETS, FIRE ALARM DEVICES, AND COMMUNICATIONS OUTLETS SHALL MEET THE REQUIREMENTS FOR AMERICANS WITH DISABILITIES (ADA) MOUNTING HEIGHTS AND ORIENTATIONS, PER NEC UNLESS OTHERWISE NOTED. RECEPTACLES SHALL BE A MINIMUM OF 15" A.F.F. AND SWITCHES A MAXIMUM OF 48" A.F.F. TO CENTERLINE, TYPICAL UNLESS OTHERWISE NOTED.
31. ALL WALL MOUNTED OUTLETS SHALL BE OFFSET SO THEY ARE NOT BACK TO BACK, FOR SOUND TRANSMISSION PURPOSES. A HORIZONTAL DISTANCE OF AT LEAST 6 INCHES SHALL SEPARATE OUTLET BOXES ON OPPOSITE SIDES OF WALLS AND PARTITIONS. MOUNT ELECTRICAL AND COMMUNICATIONS OUTLETS ON WALLS AS CLOSE TOGETHER AS POSSIBLE.
32. WIRING DEVICES SHALL BE SPECIFICATION GRADE. MINIMUM DEVICE RATING SHALL BE 20 AMPS FOR ALL WIRING DEVICES UNLESS SPECIFICALLY NOTED OTHERWISE. DEVICES WITH DEDICATED CIRCUITS SHALL BE RATED AS REQUIRED BY CIRCUIT LOAD. ISOLATED GROUND RECEPTACLES SHALL BE ORANGE. MATCH COLOR AND TYPE TO EXISTING BUILDING STANDARD. PROVIDE MATCHING NYLON COVER PLATES FOR ALL OUTLETS. ELECTRICAL CONTRACTOR SHALL VERIFY ALL OUTLETS WITH ARCHITECTURAL PLANS AND TENANT BEFORE ORDERING AND PURCHASING OF MATERIALS.
33. FIRE RESISTIVE WALLS AND PARTITIONS MAY HAVE OPENINGS FOR STEEL ELECTRICAL OUTLET BOXES NOT EXCEEDING 16 SQUARE INCHES IN AREA, PROVIDED THE AGGREGATE AREA OF SUCH OPENINGS IS NOT MORE WITH THAN 100 SQUARE INCHES FOR ANY 100 SQUARE FEET OF WALL. A HORIZONTAL DISTANCE OF AT LEAST 24 INCHES SHALL SEPARATE OUTLET BOXES ON OPPOSITE SIDES OF FIRE RESISTIVE WALLS AND PARTITIONS.
34. ALL JUNCTION BOX COVERS SHALL BE INDELIBLY LABELED WITH PANEL DESIGNATION AND BRANCH CIRCUIT NUMBER OF EACH WIRE WITHIN THE JUNCTION BOX.
35. ALL WIRING SHALL BE COPPER, TYPE THHN OR THWN INSULATION, UNLESS SPECIFICALLY NOTED OTHERWISE. MINIMUM SIZE SHALL BE #12 AWG. CONDUCTORS SHALL BE FACTORY COLOR-CODED WITH WIRE COLOR CODING AS REQUIRED BY THE NATIONAL ELECTRICAL CODE AND USING STANDARD CONDUCTOR COLOR CODES:

120/208 VOLTS:		277/480 VOLTS:	
A:	BLACK	A:	BROWN
B:	RED	B:	ORANGE
C:	BLUE	C:	YELLOW
NEU:	WHITE	NEU:	GRAY
GND:	GREEN	GND:	GREEN

ISO. G: GREEN W/YELLOW STRIPE

36. RECEPTACLES FOR COMPUTERS, COPIERS, AND PRINTERS, WHICH ARE SEMI-DEDICATED, DEDICATED, OR ISOLATED, SHALL HAVE A SEPARATE NEUTRAL AND DEDICATED GROUND CONDUCTOR RUN FROM THE BRANCH CIRCUIT PANEL BOARD.
37. ALL JOINTS OR SPLICES FOR 10 AWG. CONDUCTORS OR SMALLER SHALL BE MADE WITH UL-APPROVED WIRE NUTS, OR COMPRESSION-TYPE CONNECTORS.
38. ALL JOINTS OR SPLICES FOR CONDUCTORS 8 AWG AND LARGER SHALL BE MADE WITH A MECHANICAL COMPRESSION OR BOLTED CONNECTOR. AFTER THE CONDUCTORS HAVE BEEN MADE MECHANICALLY AND ELECTRICALLY SECURE, THE ENTIRE JOINT OR SPLICE SHALL BE COVERED WITH 3M SCOTCH BRAND NO. 33 TAPE OR APPROVED EQUAL, TO MAKE THE INSULATION VALUE AT THE JOINT OR SPLICE EQUAL TO THE VALUE OF THE CONDUCTOR INSULATION. ALL CONNECTORS SHALL BE UL APPROVED.
39. ALL NEW MULTI-WIRE BRANCH CIRCUITS SHALL INCLUDE SEPARATE NEUTRAL CONDUCTORS OR BREAKER TIES AS REQUIRED BY CURRENT NEC SECTION 210.4 (B).
40. VOLTAGE DROP: THE ELECTRICAL CONTRACTOR SHALL ENSURE THAT VOLTAGE DROP FOR FEEDERS TO DISTRIBUTION EQUIPMENT DOES NOT EXCEED 2% AND VOLTAGE DROP IN BRANCH CIRCUITING DOES NOT EXCEED 3% FOR OVERALL VOLTAGE DROP OF 5% (MAXIMUM). FEEDERS LISTED ON SCHEDULES AND THE ELECTRICAL ONE-LINE DIAGRAM ARE A BASE FEEDER/BRANCH CIRCUIT SIZE AND SHALL BE ADJUSTED AS NEEDED BASED ON ACTUAL LENGTHS OF CONDUCTORS.
41. ELECTRICAL CONTRACTOR SHALL UP SIZE SHARED NEUTRAL CONDUCTOR WITHIN FURNITURE SYSTEMS TO A #10 AWG CU CONDUCTOR. ELECTRICAL CONTRACTOR TO CONSIDER THE NEUTRAL CONDUCTOR AS A CURRENT CARRYING CONDUCTOR WHEN FEEDING ELECTRONIC LOADS.
42. ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY FROM STRUCTURE. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS OF LIGHT FIXTURES AND ELECTRICAL DEVICES.
43. FOR ALUMINUM CONDUCTOR TERMINATIONS, ALUMINUM BI-METALLIC PIN CONNECTORS ARE REQUIRED UNLESS COMPACT CONDUCTORS ARE USED. THESE CONNECTORS SHALL BE UL LISTED PER UL 486B AND RATED FOR USE UP TO 600V AND TEMPERATURE UP TO 90°C. CONNECTORS SHALL BE INSTALLED WITH MANUFACTURER'S SPECIFIED CRIMPING TOOLS AND DIES.
44. INSTALLATION IN AREAS OF DRYWALL CEILING SHALL BE COORDINATED SUCH THAT ACCESS PANELS ARE NOT REQUIRED. ELEMENTS REQUIRING ACCESS SHALL BE LOCATED IN THE AREAS OF ACCESSIBLE CEILING OR IN THE LOCATIONS COORDINATED WITH ARCHITECT. ACCESS PANELS REQUIRED WITHIN DRYWALL CEILINGS SHALL BE INSTALLED SYMMETRICALLY WITH OTHER PANELS OR DEVICES AND SHALL BE MINIMUM SIZE REQUIRED. "MUD-IN" TYPE, AND FIRE RATED, IF REQUIRED. ACCESS PANELS IN FIRE-RATED WALLS AND CEILINGS SHALL HAVE PROPER UL LABEL AND FIRE RATING LISTING.
45. WALL AND CEILING ROUGH-IN INSTALLATIONS FOR LOW-VOLTAGE CONTROL WIRING OF ANY TYPE SUCH AS DATA/TELECOMMUNICATIONS WIRING, FIRE ALARM WIRING, HVAC CONTROL WIRING, SECURITY SYSTEMS WIRING, TV CABLING, OPTICAL FIBER CABLING, ETC., SHALL BE COMPLETE AND READY FOR INSPECTION AT THE TIME ELECTRICAL ROUGH-IN INSPECTIONS ARE REQUESTED. ALL SHARP EDGES, CONDUIT ENDS AND METAL STUDS, ETC. FOR LOW-VOLTAGE CABLING SHALL BE PROTECTED BY INSULATED BUSHINGS OR GROMMETS AND SECURELY FASTENED IN THE OPENINGS FOR THE WALL SLOUGHT-IN INSPECTIONS. WORK SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER (GROUPED CABLES ROUTED WITH SQUARE CORNERS AND PARALLEL TO BUILDING LINES.) CABLES SHALL BE INSTALLED PER NEC REQUIRED SEPARATIONS AND SUPPORTED FROM THE BUILDING STRUCTURE. CABLE TIES FOR CABLE SUPPORTS, PLENUM AND OTHER AIR-HANDLING SPACES ARE REQUIRED TO HAVE A TESTING LABORATORY LISTING NUMBER AND LABEL ON EACH UNOPENED PACKAGE AS BEING APPROVED FOR USE IN THESE LOCATIONS.
46. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF ALL ELECTRICAL DEVICES LOCATED WITHIN, ABOVE, OR NEAR MILLWORK WITH ARCHITECTURAL DRAWINGS, APPROVED "SHOP DRAWINGS", AND MILLWORK CONTRACTOR. MAINTAIN CONSISTENT MOUNTING PRACTICES FOR A UNIFORM APPEARANCE. VERIFY ALL OUTLET REQUIREMENTS PRIOR TO ROUGH IN.
47. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF LIGHTING FIXTURES IN MECHANICAL ROOMS/SPACES WITH MECHANICAL DUCT WORK INSTALLER PRIOR TO ROUGH IN. LOCATE BELOW DUCT WORK (8'-0" A.F.F. MIN.) CENTERED IN ROOM AS MUCH AS POSSIBLE.
48. ELECTRICAL CONTRACTOR SHALL COMPLY WITH NEC AND LOCAL CODES FOR CONDUIT FILL REQUIREMENTS DEPENDING ON WIRE SIZES, QUANTITY, AND CORRECTION FACTORS. COORDINATION WITH LOCAL AUTHORITY HAVING JURISDICTION IF UPGRADE OF THE EXISTING ELECTRICAL INSTALLATION IS REQUIRED. THIS UPGRADE MAY INCLUDE REPLACEMENT OF THE EXISTING CONDUITS AND WIRING AFFECTED BY SCOPE OF THIS PROJECT TO ACCOMMODATE CURRENT CODE CONDUIT FILL AND CORRECTION REQUIREMENTS. INCLUDE COST ASSOCIATED WITH THIS UPGRADE IN THE BID.
49. ELECTRICAL CABINETS AND ENCLOSURES LOCATED IN PUBLIC AREAS SHALL BE LOCKABLE TYPE.
50. PENETRATIONS THROUGH STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT SPECIFIC WRITTEN PERMISSION FROM STRUCTURAL ENGINEER AND ARCHITECT. SUBMIT REQUESTS FOR PENETRATIONS TO ARCHITECT FOR REVIEW AND DISPOSITION. PRIOR TO CORE, DRILLING THROUGH FLOORS, VERIFY CLEARANCE OF BEAMS, DUCTWORK, ETC IN CEILING SPACE BELOW, AND X-RAY FOR CONDUIT AND/OR REBAR IN SLAB. COORDINATE WITH BUILDING MANAGEMENT/OWNER TO INFORM TENANT BELOW FOR SCHEDULING OF CORE DRILLING AND TO ADVICE CONCERNING PROTECTION FOR ANY SENSITIVE EQUIPMENT PRIOR TO COMMENCEMENT OF WORK. ALL X-RAYS AND CORE DRILLS MUST BE SCHEDULED FOR AFTER HOURS UNLESS BUILDING MANAGEMENT/OWNER AUTHORIZES OTHERWISE.
51. RACEWAYS SHALL BE PROVIDED WITH EXPANSION FITTINGS WHERE NECESSARY TO COMPENSATE FOR THERMAL EXPANSION AND CONTRACTION, AND TO ALLOW FOR MINOR MOVEMENT OF THE STRUCTURAL ELEMENTS OF THE BUILDING EXPANSION FITTINGS FOR METAL RACEWAYS SHALL BE MADE ELECTRICALLY CONTINUOUS BY EQUIPMENT BONDING JUMPERS OR OTHER MEANS.
52. PROVIDE TYPEWRITTEN, UPDATED PANELBOARD DOOR DIRECTORIES FOR ALL AFFECTED PANELS PER NEC 408.4. REFLECTING ACCURATE BRANCH CIRCUIT DESTINATIONS. CLEARLY MARK JUNCTION BOXES IN CEILING SPACE WITH PANEL DESIGNATIONS AND CIRCUIT NUMBERS. PROVIDE NEW ENGRAVED PLASTIC LABELS TO REPLACE ANY DAMAGED LABELS. REPLACE ANY OTHERWISE ILLEGIBLE EXISTING IDENTIFICATION LABELS FOR DISTRIBUTION EQUIPMENT AFFECTED BY THIS CONTRACT. ATTACH THESE LABELS PERMANENTLY TO EQUIPMENT WITH RIVETS OR SCREWS. ALL PANEL SCHEDULES SHALL INDICATE THE NAME OF THE UPSTREAM PANEL OR SWITCHBOARD PROVIDING POWER.
53. CLEAN EXPOSED PANEL BOARD SURFACES AND CHECK TIGHTNESS OF ELECTRICAL CONNECTIONS. REPLACE DAMAGED CIRCUIT BREAKERS AS REQUIRED AND PROVIDE CLOSURE PLATES FOR VACANT SPACES. ALL NEW PANELS PROVIDED UNDER THIS CONTRACT SHALL BE DOOR-IN-DOOR CONSTRUCTION TYPE, WITH BOLT-ON CIRCUIT BREAKERS AND COPPER BUSSING, UNLESS SPECIFICALLY NOTED OTHERWISE.
54. PROVIDE FIRE STOPPING MATERIAL AND SYSTEMS AS LISTED IN THE UL FIRE RESISTANCE DIRECTORY EQUAL TO THE FIRE RESISTANCE RATING OF THE RESPECTIVE WALL OR FLOOR ASSEMBLY FOR ALL PENETRATIONS OF CONDUIT, SLEEVES, WIRING, CABLES AND OTHER ELECTRICAL ITEMS THROUGH FIRE-RATED CORRIDOR WALLS, FIRE RESISTIVE WALLS, FIRE RESISTIVE SHAFTS, AND FLOOR PENETRATIONS.
55. VERIFY ALL SPECIFIC KITCHEN AND BREAK ROOM EQUIPMENT REQUIREMENTS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH IN. COORDINATION SHALL INCLUDE MOUNTING HEIGHTS, CONNECTION TYPE AND POWER REQUIREMENTS. ALL CONNECTIONS FOR KITCHEN EQUIPMENT SHALL BE IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S AND SUPPLIER'S RECOMMENDATIONS. PROVIDE CORD AND PLUG FOR DISHWASHERS AND GARBAGE DISPOSER PER NEC 422.16(B)(1) AND (2).
56. SECURITY: ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS AND REQUIREMENTS FOR J-BOX ROUGH-INS, CONDUIT RUNS WITH PULL WIRE AND POWER REQUIREMENTS FOR SECURITY SYSTEM WITH SECURITY SYSTEM CONTRACTOR PRIOR TO ROUGH-IN. THE SECURITY SYSTEM CONTRACTOR SHALL ALSO COORDINATE WORK WITH FIRE ALARM CONTRACTOR FOR COORDINATION OF THE INTERCONNECTION OF THE SECURITY SYSTEM WITH FIRE ALARM SYSTEM AS REQUIRED PER LOCAL CODES AND FIRE DEPARTMENT REGULATIONS.
57. AUDIO-VISUAL EQUIPMENT: ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS AND REQUIREMENTS FOR J-BOX ROUGH-INS, CONDUIT RUNS WITH PULL WIRE, REQUIRED PENETRATIONS, AND POWER REQUIREMENTS FOR AUDIO-VIDEO EQUIPMENT WITH AUDIO-VIDEO CONTRACTOR PRIOR TO ROUGH-IN.
58. COORDINATE CONTROL OF LUMINAIRES IN BUILDING COMMON CORRIDOR AREAS WITH BUILDING MANAGEMENT.
59. EXISTING LIGHT FIXTURES TO BE RELOCATED: LUMINAIRES SCHEDULED TO BE RELOCATED ARE CONSIDERED AS NEW INSTALLATION AND SHALL BE EITHER RETROFITTED WITH AN INDIVIDUAL DISCONNECTING MEANS WHICH SIMULTANEOUSLY DISCONNECTS ALL BALLAST CONDUCTORS FROM THE SOURCE OF SUPPLY OR RETROFITTED WITH NEW BALLASTS AND LAMP POSTS COMPLYING WITH THE REQUIREMENTS SET IN NEC 410.130 (G). THE ELECTRICAL CONTRACTOR SHALL INCLUDE IN THEIR BID A SEPARATE LINE ITEM COST FOR EACH LUMINAIRE RETROFIT. FIELD VERIFY QUANTITY UPON AWARD OF BID AND ADJUST PRICE ACCORDINGLY.
60. UNLESS OTHERWISE INDICATED ON THE PLANS, ELECTRICAL CONTRACTOR SHALL PROVIDE A #6 STRANDED COPPER INSULATED EQUIPMENT GROUNDING CONDUCTOR AT EACH PERMANENTLY INSTALLED SERVER RACK IN THE PROJECT AREA. THIS EQU





PARTIAL EXISTING ONE LINE DIAGRAM

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

GENERAL NOTES:

A. EXISTING ITEMS SHOWN AS LIGHT ———

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DEMOLITION PLAN

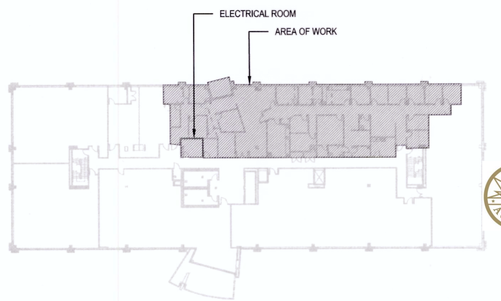
SCALE: 1/8"=1'-0"

GENERAL NOTES:

A. REMOVED ITEMS SHOWN AS DASHED AND LIGHT. - - - -
B. E.C. TO REMOVE ALL ABANDONED CONDUIT/CABLING/WIRING FROM SPACE INCLUDING ABOVE THE CEILING BACK TO SOURCE. ANY CIRCUITS MADE SPARE TO BE TURNED OFF AND LABELED AS SUCH WITH NEW TYPED PANEL SCHEDULES.
C. RETURN LIGHTING FIXTURES NOT REUSED TO PROPERTY MANAGEMENT STOCK.
D. PROTECT CIRCUITS AFFECTED BY DEMOLITION THAT HAVE DEVICES REMAINING AFTER DEMOLITION.
E. PROTECT ANY DEMOLISHED FIRE ALARM DEVICES AND EXIT SIGNS FOR RELOCATION. RETURN ANY UNUSED DEVICES TO BUILDING MANAGEMENT.

◇ DETAIL NOTES

1. PRESERVE EXISTING CIRCUIT FOR RECEPTACLE REPLACEMENT. SEE POWER PLAN FOR DETAILS.



N

KEY PLAN

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Electrical Engineering, Inc.
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SEP 05 2018
PROFESSIONAL ENGINEER

Cardiovascular and Thoracic Surgeons

Dates of Record

Project Start Date: 29 August 2018

Issued On	Issued For
29 August 2018	Tenant's Review & Approval; and Construction

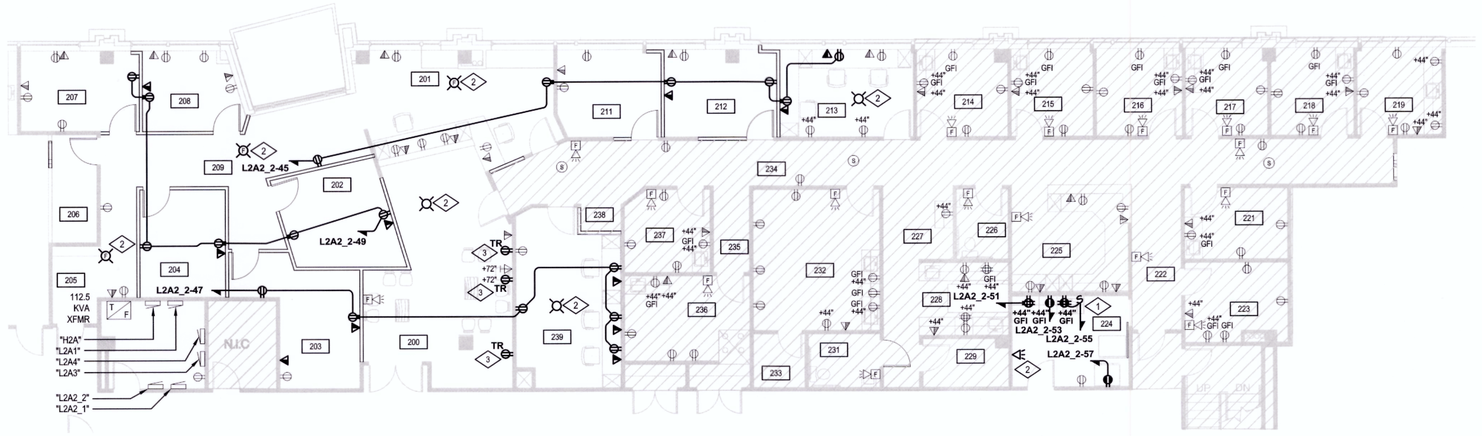
City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: jeckert
Date: Sep 17, 2018
2015 INTERNATIONAL CODES & 2017 NEC

Sheet Contents	Demolition Plan
Project Team	EM/CEE
Project Number	18318
Sheet Mark	***E1.0***

RSN: 1319864
Permit #: 18-1524209-LT

Room Schedule

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203	Office	223	I.T.
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205	Hallway	225	M.A. Station
206	Storage	226	Restroom
207	Office	227	Open Work Area
208	Office	228	M.A. Station
209	Hallway	229	Storage
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212	Office	232	Procedure
213	Office	233	Storage
214	Exam	234	Hallway
215	Exam	235	Hallway
216	Exam	236	Exam
217	Exam	237	Exam
218	Exam	238	Vitals
219	Exam	239	Office



SUPPLIED FROM: 225A 3 POLE BREAKER IN PANEL "L2A1"

PANEL "L2A2_1" (EXISTING) **VOLTAGE** 120 / 208 **V** 3 **Φ** 4 **W**
FLUSH _____ **M.C.B.** _____ **MLO** X **I.G. BAR** _____ **MANF.** _____
SURFACE X **BUS** 225 A CU **FEED THRU** L2A2_2 **A.I.C.** 10 K **C.B.** BOLT ON

TYPE	DESCRIPTION	BKR	CIR	LOAD (VOLT AMPS) / PHASE A		B		C		CIR	BKR	DESCRIPTION	TYPE
G	BODY MASTER	20	1	1000	720					2	20	RECPT 09	R
G	BODY MASTER	20	3			1000	720			4	20	RECPT 09	R
G	BODY MASTER	20	5					1000	720	6	20	OFFICE 14, RECPT 09	R
G	BODY MASTER	20	7	1000	720					8	20	OFFICE 14,16	R
G	COPIER	20	9			1000	720			10	20	OFFICE 18, 21	R
G	ROWING MACHINE	20	11					1000	720	12	20	EXAM 26, 29	R
G	ROWING MACHINE	20	13	1000	720					14	20	CORR REC 12, 39, 46	R
R	TRAINING	20	15			720	720			16	20	UCREF NURSE 28	R
R	TRAINING	20	17					720	720	18	20	REC RM 42,44	R
R	TRAINING	20	19	720	720					20	20	EXAM 15	R
R	TRAINING	20	21			720	720			22	20	PROCEDURE	R
R	TRAINING	20	23					720	720	24	20	UCREF-PROC 19	R
R	TRAINING	20	25	720	1000					26	20	HAND 07	G
R	RM 108, 92	20	27			720	1000			28	20	COPIER	G
R	RM 8,82,85,88,116,117	20	29					720	1000	30	20	DIGITIZER	G
R	RM 85,86,87,92	20	31	720	1000					32	20	LAB 2	G
R	WORK RM 104	20	33			720	1000			34	20	LAB23 UCREF	G
G	FTU 2-20,24	20	35					1650	720	36	20	NURSE 28	R
G	FTU 2-19,13	20	37	1650	720					38	20	EXAM 33 TEST 52	R
G	EXISTING LOAD	20	39			1000	720			40	20	EXAM 33, 34	R
R	REC TREAT	20	41					720	720	42	20	EXAM 29, 31	R
			L2A2_1	12410		11480		11850					
			L2A2_2	11790		9310		8640					
			TOTAL	24200		20790		20490					

LOAD TYPE	CONNECTED KVA A	B	C	TOTAL ALL PHASES	FACTOR	DEMAND KVA A	B	C	TOTAL ALL PHASES
LIGHTING	0.0	0.0	0.0	0.0	125%	0.0	0.0	0.0	0
RECEPTACLE (10KVA OR LESS)	3.3	3.3	3.3	10.0	100%	3.3	3.3	3.3	10
RECEPTACLE (OVER 10KVA)	10.2	10.7	10.7	31.6	50%	5.1	5.4	5.4	16
HVAC/MOTOR	0.0	0.0	0.0	0.0	100%	0.0	0.0	0.0	0
MOTOR (LARGEST)	0.0	0.0	0.0	0.0	125%	0.0	0.0	0.0	0
KITCHEN EQUIPMENT	1.7	1.8	1.8	5.2	90%	1.5	1.6	1.6	5
MISCELLANEOUS	9.1	5.0	4.7	18.7	100%	9.1	5.0	4.7	19
TOTAL KVA	24.2	20.8	20.5	65.5	TOTAL KVA	19.0	15.3	15.0	49
WITH GROUND BUS					TOTAL AMPS	157.9	127.2	124.6	136

LEGEND L = LIGHTING R = RECEPTACLE M = HVAC / MOTOR K = KITCHEN G = MISCELLANEOUS
MAX PERCENT DIFFERENCE BETWEEN PHASES (A,B,C): 15%

PANEL SHOWN FOR REFERENCE ONLY.

SUPPLIED FROM: FED THROUGH FROM PANEL "L2A2_1"

PANEL "L2A2_2" (EXISTING) **VOLTAGE** 120 / 208 **V** 3 **Φ** 4 **W**
FLUSH _____ **M.C.B.** _____ **MLO** _____ **I.G. BAR** _____ **MANF.** _____
SURFACE X **BUS** 225 A CU **A.I.C.** 10 K **C.B.** BOLT ON

	TYPE	DESCRIPTION	BKR	CIR	LOAD (VOLT AMPS) / PHASE A		B		C		CIR	BKR	DESCRIPTION	TYPE
	G	SUITE 230 MRI	20	43	1400	720					44	20	EXAM 31, 35	R
1	R	**RECS 201, 211, 212, 213**	20	45			1080	720			46	20	EXAM 36	R
1	R	**RECS 203, 239**	20	47					1080	720	48	20	NE CORNER OFFICE	R
1	R	**RECS 202, 204, 207, 208**	20	49	1080	720					50	20	OFFICE 33, 41	R
1	K	**BREAK COUNTER 224**	20	51			1000	720			52	20	EXAM 43	R
1	K	**COFFEE / MW 224**	20	53					1000	720	54	20	LAB. EXAM 44	R
1	K	**DW/ DISP 224**	20	55	1650	720					56	20	WORK 45	R
1	K	**FRIDGE 224**	20	57			750	720			58	20	STRGE 48 - CNTR	R
	K	BREAK VEND	20	59					800	720	60	20	STRGE 48 W WALL	R
	R	RM 74, 77	20	61	720	1000					62	20	EXISTING LOAD	G
	R	RM 74, 75, 76	20	63			720	0			64	20	SPARE	
	R	OFFICE 73	20	65					720	720	66	20	EXAM 69, VIEW BOX	R
	R	OFFICE 81, THERPY 79	20	67	720	720					68	20	EXAM 69, NURSE 64	R
	R	RM 65, 66, (X-RAY) 67	20	69			720	720			70	20	VIEW BOX EXAM 74	R
	R	WAITING 49	20	71					720	0	72	20	SPARE	
	R	RECPT RM 53	20	73	720	720					74	20	SUITE 200	R
	R	RECPT RM 53,58	20	75			720	720			76	20	SUITE 200	R
	R	EXAM 62, OFFICE 61	20	77					720	720	78	20	SUITE 200	R
	R	TELE DATA RECPT	20	79	180	720					80	20	RM 09. 13	R
		SPARE	20	81			0	720			82	20	RM 08, 17, 15	R
		SPARE	20	83					0	0	84	20	SPARE	
					11790		9310		8640					

LOAD TYPE	CONNECTED KVA A	B	C	TOTAL ALL PHASES	FACTOR	DEMAND KVA A	B	C	TOTAL ALL PHASES
LIGHTING	0.0	0.0	0.0	0.0	125%	0.0	0.0	0.0	0
RECEPTACLE (10KVA OR LESS)	3.3	3.3	3.3	10.0	100%	3.3	3.3	3.3	10
RECEPTACLE (OVER 10KVA)	4.4	4.2	3.5	12.1	50%	2.2	2.1	1.8	6
HVAC/MOTOR	0.0	0.0	0.0	0.0	100%	0.0	0.0	0.0	0
MOTOR (LARGEST)	0.0	0.0	0.0	0.0	125%	0.0	0.0	0.0	0
KITCHEN EQUIPMENT	1.7	1.8	1.8	5.2	90%	1.5	1.6	1.6	5
MISCELLANEOUS	2.4	0.0	0.0	2.4	100%	2.4	0.0	0.0	2
TOTAL KVA	11.8	9.3	8.6	29.7	TOTAL KVA	9.4	7.0	6.7	23
WITH GROUND BUS					TOTAL AMPS	78.5	58.5	55.9	64

LEGEND L = LIGHTING R = RECEPTACLE M = HVAC / MOTOR K = KITCHEN G = MISCELLANEOUS
MAX PERCENT DIFFERENCE BETWEEN PHASES (A,B,C): 27%

1 **CIRCUIT REVISED THIS CONTRACT, LOAD ADDED TO PREVIOUSLY SPARE BREAKER.**

SUPPLIED FROM: 112.5KVA XFMR

PANEL "L2A1" (EXISTING) **VOLTAGE** 120 / 208 **V** 3 **Φ** 4 **W**
FLUSH _____ **M.C.B.** 400/3 A **MLO** _____ **I.G. BAR** _____ **MANF.** _____
SURFACE X **BUS** 400 A CU **A.I.C.** 10 K **C.B.** BOLT ON

TYPE	DESCRIPTION	BKR	CIR	LOAD (VOLT AMPS) / PHASE A		B		C		CIR	BKR	DESCRIPTION	TYPE
RKG	PANEL "L2A2"	225	1	24200	11300					2	225	PANEL "L2A3"	RG
RKG	-	/	3			20790	14240			4	/	-	RKG
RKG	-	3P	5					20490	14880	6	3P		RKG
	SPARE	225	7	0	0					8	225	SPARE	
	-	/	9			0	0			10	/	-	
	-	3P	11					0	0	12	3P	-	
RKG	PANEL "L2A4"	125	13	9970	0					14	225	SPARE	
RKG	-	/	15			10700	0			16	/	-	
RKG	-	3P	17					9320	0	18	3P		
R	REC OFFICE STORAGE	20	19	720	0					20	20	SPARE	
K	DISPOSAL 114	20	21			1280	180			22	20	IT RM REC	R
K	KITCHEN GFCI 114	20	23					180	360	24	20	ELEC RM REC	R
R	CONF REC 113	20	25	360	500					26	20	FACP	G
R	GYM EAST WALL	20	27			360	0			28	20	SPARE	
R	GYM NORTH WALL	20	29					720	120	30	20	EF-4	M
L	XRAY EQUIP LIGHT	20	31	500	1000					32	20	BODY MASTER	G
L	ELEV LOBBY LIGHT	20	33			1000	1000			34	20	BODY MASTER	G
	SPARE	20	35					0	720	36	20	TV REC	R
	SPARE	20	37	0	500					38	20	DAMPERS	G
	SPARE	20	39			0	1650			40	20	FTU 2-14	G
G	FTU 2-18	20	41					1650	1650	42	20	FTU 2-15	G
	SPARE	20	43	0	0					44	20	SPARE	
	SPARE	20	45			0	0			46	-	SPACE	
	SPACE	-	47					0	0	48	-	SPACE	
				49050		51180		50090					

LOAD TYPE	CONNECTED KVA A	B	C	TOTAL ALL PHASES	FACTOR	DEMAND KVA A	B	C	TOTAL ALL PHASES
LIGHTING	0.5	1.0	0.0	1.5	125%	0.6	1.3	0.0	2
RECEPTACLE (10KVA OR LESS)	3.3	3.3	3.3	10.0	100%	3.3	3.3	3.3	10
RECEPTACLE (OVER 10KVA)	28.3	30.7	28.4	87.4	50%	14.2	15.3	14.2	44
HVAC/MOTOR	0.0	0.0	0.0	0.0	100%	0.0	0.0	0.0	0
MOTOR (LARGEST)	0.0	0.0	0.1	0.1	125%	0.0	0.0	0.2	0
KITCHEN EQUIPMENT	2.4	4.8	3.8	11.0	65%	1.5	3.1	2.5	7
MISCELLANEOUS	14.6	11.4	14.5	40.4	100%	14.6	11.4	14.5	40
TOTAL KVA	49.1	51.2	50.1	150.3	TOTAL KVA	34.2	34.4	34.6	103
WITH GROUND BUS					TOTAL AMPS	285.0	286.7	288.3	286

LEGEND L = LIGHTING R = RECEPTACLE M = HVAC / MOTOR K = KITCHEN G = MISCELLANEOUS
MAX PERCENT DIFFERENCE BETWEEN PHASES (A,B,C): 4%

PANEL SHOWN FOR REFERENCE ONLY.

Legibly identify each breaker or switch for it's use or purpose on the circuit directory in the panel/switchboard per 2017 NEC 408.4.

Provide a grounded electrode system bonded to the service equipment enclosure, grounded conductors, and grounded electrode conductors. 2017 NEC 250.50 and 250.104.

N

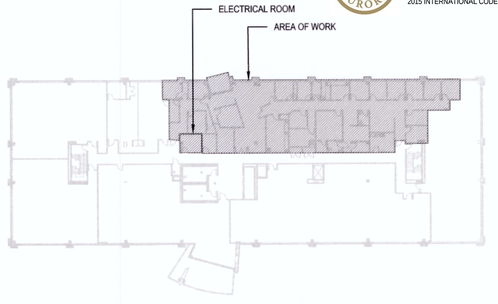
POWER PLAN

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

GENERAL NOTES:
A. NEW AND RELOCATED ITEMS SHOWN AS BOLD ——
EXISTING ITEMS SHOWN AS LIGHT ——

⑥ DETAIL NOTES

1. PROVIDE HALF SWITCHED GFI QUADRUPLEX OUTLET. SWITCHED HALF FOR DISPOSAL. UNSWITCHED FOR DISHWASHER. PROVIDE GROMMETS AND CORD AND CAPS AS NECESSARY.
2. NEW FIRE ALARM DEVICE, SEE FIRE ALARM GENERAL NOTES.
3. INSTALL TAMPER RESISTANT RECEPTACLE. CONNECT TO PRESERVED CIRCUITING.



N **KEY PLAN**

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: jeckert
Date: Sep 17, 2018
2015 INTERNATIONAL CODES & 2017 NEC

COREY
Electrical Engineering, Inc.
Commercial and Transportation Design
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1444 South Potomac
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Cardiovascular and Thoracic Surgeons

COLORADO LICENSED ALEXANDER T. KOLP 46607 PROFESSIONAL ENGINEER SEP 05 2018

Dates of Record
Project Start Date: 29 August 2018

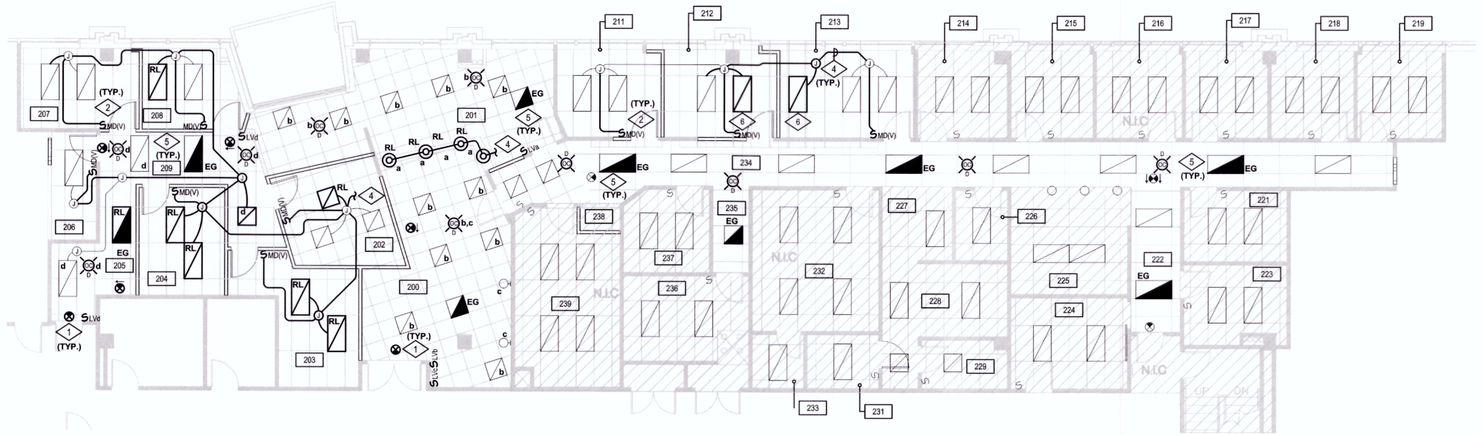
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Sheet Mark	**E2.0**

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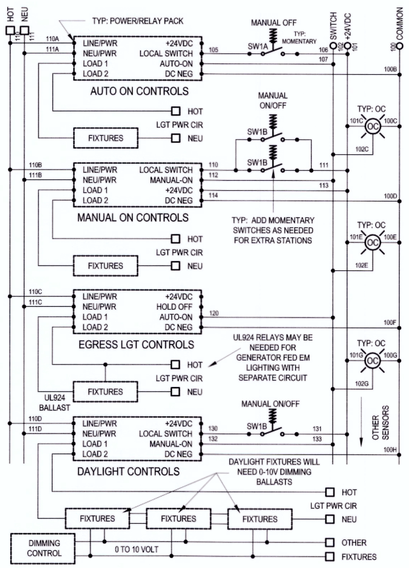
MINIMUM CONTROLS BY AREA CHART

	AREA TYPE:	CONTROL TYPE:
	PRIVATE OFFICE	OCC, MANUAL ON, AUTO OFF (VACANCY MODE)
	OPEN OFFICE AREA	OCC, 50% FULL AUTO ON, 50%, MANUAL ON AUTO OFF, 100% MANUAL OFF CAPABLE
	DAYLIGHT ZONES	OCC, AUTO, MANUAL ON \ OFF, DAYLIGHT CONTROLLED DIMMERS
*	EGRESS LIGHTS, OPEN OFF, FACTORY, ETC.	OCC, FULL AUTO ON, BATT OR GEN BACKED
*	EGRESS LIGHTS, WITH ALT EM LIGHTING	OCC, FULL AUTO ON, NO BACK UP POWER
	WALK-IN COOLER, FREEZER	OCC, AUTO, MANUAL ON
	TRAINING, CONFERENCE, COPY, BREAK	OCC, AUTO, MANUAL ON, MANUAL OFF CAPABLE
	STORAGE, CLOSETS & LOCKER ROOMS.	OCC, AUTO, MANUAL ON, MANUAL OFF CAPABLE
*	HALLWAY CONNECTED TO OPEN AREA	OCC, AUTO, MANUAL OFF CAPABLE.
*	HALLWAYS, STAIRS, RESTRMS, LOBBIES, CORRIDOR	OCC, FULL AUTO
	FACTORY	OCC, MANUAL ON, AUTO OFF (VACANCY MODE)
	WAREHOUSE	OCC BY ROW, MANUAL ON AUTO OFF. EGRESS LIGHTS OCC AUTO

* WHERE NOTED ON PLANS, THESE AREAS MAY UTILIZE TIMECLOCK IN LIEU OF SENSORS TO CONTROL LIGHTS UNDER NORMAL OPERATING CONDITIONS. PER IECC SAFETY/SECURITY EXEMPTION, EMERGENCY/EGRESS LIGHTING TO OPERATE AHEAD OF ALL CONTROLS AS NIGHTLIGHTS.

LIGHTING CONTROLS GENERAL NOTES:

1. WIRING DIAGRAM REPRESENTS DIAGRAMIC DESIGN TO OPERATE OPEN OFFICE PACKS USING SAME SET OF OCC. SENSORS, SOME WIRING MAY NOT BE NEEDED.
2. LEVITON OSP20-RDH POWER PACK IS THE BASIS OF DESIGN FOR THIS WIRING DIAGRAM. PROVIDE WIRING ADJUSTMENTS TO ACCOMMODATE ACTUAL POWER PACK/RELAYS PROVIDED. EXPAND WIRING AS NEEDED FOR MULTIPLE ZONES.
3. GENERIC +24VDC OCC. SENSORS CAN BE USED SUCH AS COOPER OAC-DT-1000
4. POWER PACK CONTROL POWER CAN BE THE SAME CIRCUIT SERVING FIXTURES.
5. PROVIDE EXTRA POWER PACKS AS REQUIRED TO ACCOMMODATE QUANTITIES OF OCCUPANCY SENSORS BEYOND THE SUPPLY CAPACITY OF A SINGLE POWER PACK.
6. CONTRACTOR TO CONFIRM ALL PARTS, PIECES, AND WIRING WILL WORK TOGETHER PRIOR TO INSTALLATION.
7. CONTROLLED ZONES SHALL NOT EXCEED 5000 SQ-FT PER SET OF SWITCHES.
8. PROVIDE AS-BUILTS, MANUALS, CALIBRATION, AND TESTING. PREFER REMOTE TYPE CALIBRATION. PROVIDE ADHESIVE LABELS FOR SWITCHES.



N

LIGHTING PLAN

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

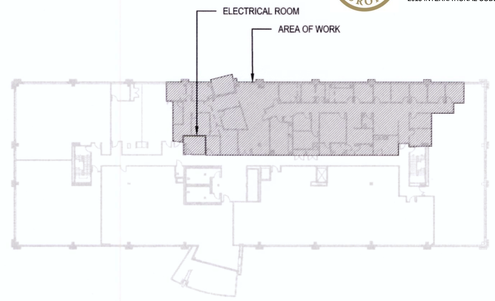
GENERAL NOTES:

A. NEW AND RELOCATED ITEMS SHOWN AS BOLD
EXISTING ITEMS SHOWN AS LIGHT
B. LOWER CASE LETTERING INDICATED ON SWITCHES AND FIXTURES, IF SHOWN, INDICATES WHICH SWITCHES CONTROL WHICH FIXTURES.

DETAIL NOTES

1. NEW/RELOCATED EXIT SIGN. FOR NEW, MATCH BUILDING STANDARD, GREEN LED LETTERING WITH WHITE HOUSING AND 90-MIN BATTERY BACKUP. CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF CONTROL.
2. PROVIDE/EXTEND NEUTRAL TO NEW WALL MOUNTED OCCUPANCY SENSOR AS NEEDED.
3. E.C. TO CLEAN/REPAIR/REBALLAST/RELAMP EXISTING/RELOCATED FIXTURES AS NECESSARY TO PROVIDE A LIKE-NEW APPEARANCE.
4. CONNECT TO LOCAL LIGHTING CIRCUIT (AND CONTROLS, AS APPLICABLE). E.C. TO VERIFY NO MORE THAN 70% LOAD ON A SINGLE 277V LIGHTING CIRCUIT.
5. PROVIDE FIXTURE WITH 90-MIN BATTERY BACKUP AND TEST SWITCH AND CIRCUIT TO LOCAL LIGHTING CIRCUIT AHEAD OF MANUAL CONTROL, BUT NOT SENSORS. CONNECT SWITCH LEADS SO POWER FAILURE OVERRIDES SENSOR CONTROL.
6. PROVIDE NEW 2'x4' RECESS-MOUNTED GRID TROFFER TO MATCH EXISTING IN SUITE BY MANUFACTURER, FINISH, COLOR TEMPERATURE, CRI, AND LUMEN OUTPUT. DO NOT EXCEED 96W AT 277V.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: jeckert
Date: Sep 17, 2018
2015 INTERNATIONAL CODES & 2017 NEC



N

KEY PLAN

COREY
Electrical Engineering, Inc.
Commercial and Transportation Design
7522 S. Wickerrig Ct., Suite B | Englewood, CO 80112 | P (303) 996-1257 | projects@coreyeng.com

1444 South Potomac
1444 South Potomac
Aurora, CO 80012
Suite 200

COLORADO LICENSED
STEPHEN J. JECKERT
45607
SEP 05 2018
PROFESSIONAL ENGINEER

Cardiovascular and Thoracic Surgeons

Dates of Record

Project Start Date: 29 August 2018

Issued On	Issued For
29 August 2018	Tenant's Review & Approval; and Construction

Sheet Contents	Lighting Plan
Project Team	EM/CEE
Project Number	18318
Sheet Mark	**E3.0**

RSN: 1319864
Permit #: 18-1524209-LT

COMcheck Software Version 4.0.7.0

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2015 IECC
Project Title: Cardiovascular &Thoracic Surgeons
Project Type: Alteration

Construction Site:
1444 S Potomac
Suite 200
Aurora, CO 80012

Owner/Agent:

Designer/Contractor:
Eric McCloskey
Corey EE
7822 S Wheeling Ct
Ste B
Englewood, CO 80122

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Healthcare Facility:Exam/Treatment: Exempt			
		Total Allowed Watts =	N/A

Area Category Exemption Qualifications

Activity Area	# Fixtures		Total # Watts	
	Pre-Alt.	Repl./Added	Pre-Alt.	Post-Alt.
Healthcare Facility:Exam/Treatment (5222 sq.ft.)	105	0	10080.000	9408.000
Exemption: Less than 10% fixture replacement.				

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Healthcare Facility:Exam/Treatment (5222 sq.ft.): Exempt				
			Total Proposed Watts =	N/A

Interior Lighting PASSES

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2015 IECC requirements in COM*check* Version 4.0.7.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Eric McCloskey - Project Engineer — Name - Title
Signature
08/27/2018 — Date

COMcheck Software Version 4.0.7.0

Inspection Checklist

Energy Code: 2015 IECC

Requirements: 0.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

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REGISTERED PROFESSIONAL ENGINEER
STATE OF COLORADO
ERIC J. MCCLOSKEY
46607
SEP 05 2018
PROFESSIONAL ENGINEER

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: jeckert
Date: Sep 17, 2018
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Cardiovascular and Thoracic Surgeons

Dates of Record

Project Start Date: 29 August 2018

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29 August 2018	Tenant's Review & Approval; and Construction

Sheet Contents: Comcheck
Project Team: EM/CEE
Project Number: 18318
Sheet Mark: ***E4.0***

RSN: 1319864
Permit #: 18-1524209-LT