PROVIDE A FULL-SIZE SET OF LEGIBLE APPROVED CONSTRUCTION DOCUMENTS **PRINTED IN COLOR** FOR REVIEW BY INSPECTOR

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

AT ALL TIMES DURING CONSTRUCTION, MAINTAIN REQUIRED EXITS, EXISTING STRUCTURAL ELEMENTS, FIRE PROTECTION AND SANITARY GUARDS PER **2021 IBC 3302.1**

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

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

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

Provide U.L. Class **2A10BC** minimum rating fire extinguishers at a maximum 75'-0" travel distance prior to the Certificate of Occupancy issuance. **2021 IFC Table 906.3[1] and 2013 NFPA 10**

Consultation for fire extinguisher placement is available upon request. Call 303-739-7420 prior to final Life Safety inspection to verify proposed locations.

This plan was reviewed for adopted codes and NOT for compliance with **ADA** or **FHA** accessibility requirements. Contact 800-949-4232 (**ADA**) and 303-894-7822 x 325 (**FHA**) for federal accessibility requirements that apply to your project.

City of Aurora Building Division
Project: *Tenant Improvement*
Address: *1444 S POTOMAC ST Unit 100*
Occupancy Group: *IBC B*
Construction Type: *IBC IIB-SPK*
RSN: *1722084*
Permit: *23-2344729-LT*

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Matt A.
Date: Jul 03, 2023
2021 INTERNATIONAL CODES & 2020 NEC

RSN: *1722084*
Permit #: *23-2344729-LT*

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 if a separate sprinkler permit is required. If it is determined that the spacing of the fire sprinkler heads is not incompliance, then a separate fire sprinkler permit is required. Approval of the documents is required prior to system installation or any requires for inspection. A Certificate of Occupancy or final approval cannot be issued by the Building Division without this fire protection system. 2021 IFC, Section 105.6.1

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

NOTES TO GENERAL CONTRACTOR

1. THE CONTRACTOR SHALL INSPECT THE PREMISES IMMEDIATELY TO CHECK EXISTING WORKING CONDITIONS. SHOULD THE CONTRACTOR FIND CONDITIONS WHICH HE BELIEVES WOULD IMPEDE HIS WORK, THEN SUCH CONDITIONS MUST BE REPORTED IMMEDIATELY TO THE ARCHITECT. FAILURE TO DO SO WILL CONSTITUTE NOTICE THAT CONTRACTOR IS FULLY SATISFIED WITH THE EXISTING CONDITIONS AND THAT HE INTENDS TO PERFORM HIS OBLIGATIONS WITH NO ALLOWANCE EITHER IN TIME OR MONEY FOR ANY IMPEDIMENTS TO HIS WORK.
2. DRAWINGS ASSUME THE EXISTING BUILDING TO BE IN COMPLIANCE WITH CODE REQUIREMENTS. ANY VIOLATIONS OF CODES IN EXISTING BUILDING DISCOVERED DURING THE COURSE OF CONSTRUCTION WILL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE BUILDING OWNER.
3. FIRE PROTECTION DRAWINGS SHALL BE A DEFERRED SUBMITTAL BY THE CONTRACTOR. THE LAYOUT SHALL BE IN CHARACTER WITH THE DESIGN INTENT OF THE CEILING. HEADS ARE TO BE RECESSED IF POSSIBLE AND FINISHED TO BLEND WITH THE CEILING FINISH.
4. CONTRACTOR TO PROVIDE ALL SIGNAGE AS REQUIRED BY THE CITY AND THE ADA.
5. CONTRACTOR TO POST ROOM CAPACITY AS REQUIRED BY CODE.
6. IF REQUIRED BY CODE OR FIELD INSPECTORS TO BE PLACED IN ADDITIONAL OR DIFFERENT LOCATIONS THAN PLANS INDICATE, VERIFY WITH ARCHITECT EXACT LOCATION OF EXIT SIGNS, AUDIBLE OR VISIBLE ALARM SPEAKERS AND FIRE EXTINGUISHER CABINETS PRIOR TO INSTALLATION.
7. THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT AS SOON AS POSSIBLE OF ALL ITEMS WITH LONG LEAD TIMES THAT MAY DELAY CONSTRUCTION SO THAT ALTERNATE OPTIONS MAY BE EXPLORED.
8. GENERAL CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS AND SUBMITTALS TO DESIGNER FOR APPROVAL BEFORE FABRICATION OR INSTALLATION OF ANY ITEMS. ITEMS NOT REVIEWED AND APPROVED BY DESIGNER SHALL BE CONSIDERED 'NOT APPROVED'. CONTRACTOR SHALL SUBMIT (4) DUPLICATE COPIES OF ALL SUBMITTALS. REQUIRED SUBMITTALS INCLUDE, BUT ARE NOT LIMITED TO - MILLWORK, H.V.A.C., PLUMBING, ELECTRICAL, GLASS AND GLAZING, ALL FINISHES/FINISH MATERIALS, DOOR HARDWARE, ETC. ALTERNATES AND SUBSTITUTIONS SHALL NOT BE USED UNLESS DESIGNER'S WRITTEN APPROVAL IS OBTAINED BY THE GENERAL CONTRACTOR.
9. GENERAL CONTRACTOR SHALL VISIT THE SITE/SUITE IN ORDER TO CONFIRM UNIT QUANTITIES OF BUILDING MATERIALS AND/OR OTHER EXISTING CONDITIONS WHICH MAY HAVE AN IMPACT ON COST. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF DESIGNER. RECEIPT OF BID INDICATES THAT THE GENERAL CONTRACTOR IS IN CONFORMANCE WITH THE INTENT OF THESE DRAWINGS AND AS BUILT CONDITIONS.
10. HVAC SYSTEM TO BE PROPERLY BALANCED PRIOR TO TENANT OCCUPANCY.

GENERAL NOTES

1. OPENINGS AT ROOF MUST CONFORM TO ROOFING SPECIFICATIONS AND STRUCTURAL ENGINEER'S FRAMING.
2. FIRE SPRINKLER APPROVALS ARE NOT INCLUDED UNDER THIS PERMIT. BEFORE COMMENCING ANY WORK ON THE SPRINKLER SYSTEM, SEPARATE SPRINKLER PLANS MUST BE SUBMITTED AND APPROVED BY THE DEPARTMENT OF BUILDING SAFETY. THE SYSTEM MUST BE INSPECTED AND APPROVED BY BUILDING SAFETY PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
3. NO EXTERIOR VENDING OR DISPLAY SHALL BE ALLOWED.
4. NO EXTERIOR MODIFICATIONS ARE PROPOSED.
5. ALL SIGNS REQUIRE SEPARATE PERMITS AND APPROVALS.
6. ALL EXTERIOR MECHANICAL, UTILITY, AND COMMUNICATION EQUIPMENT SHALL BE SCREENED TO THE HEIGHT OF THE TALLEST UNIT BY A PARAPET OR SCREEN WALL THAT MATCHES THE ARCHITECTURAL COLOR AND ARCHITECTURAL FINISH OF THE BUILDING. GROUND MOUNTED MECHANICAL, UTILITY, AND COMMUNICATION EQUIPMENT SHALL BE SCREENED BY A SCREEN WALL THAT MATCHES THE ARCHITECTURAL COLOR, AND ARCHITECTURAL FINISH OF THE BUILDING, WHICH IS A MINIMUN OF 1'-0" HIGHER THAN THE HIGHEST POINT OF THE TALLEST UNIT.
7. ALL EQUIPMENT, UTILITIES, OR OTHER APPURTENANCES ATTACHED TO THE BUILDING SHALL BE AN INTEGRAL PART OF THE BUILDING DESIGN IN TERMS OF FORM, COLOR AND TEXTURE.

DEFERRED SUBMITTALS

1. FIRE SPRINKLERS
2. FIRE ALARM SYSTEMS
3. SIGNAGE

PROJECT CONTACTS

BUILDING ENGINEERING/OPERATIONS MANAGER
COMPANY: CBRE
CONTACT: CARL HOLMES
PHONE 720.641.7581
EMAIL CARL.HOLMES@CBRE.COM

ARCHITECTURAL DESIGN
COMPANY: BLOOM STUDIO
CONTACT: HEATHER RICHARDS
ADDRESS: 989 COMPASS DRIVE, ERIE, COLORADO 80516
PHONE: 303.505.7647
EMAIL: HEATHER@BLOOMSTUDIOLLC.COM

ELECTRICAL ENGINEER
COMPANY: HUTCHISON PAPESH ENGINEERING
CONTACT: BRENT PAPESH
ADDRESS: 13986 W. BOWLES AVENUE, SUITE 102, LITTLETON, CO 80127
PHONE: 303.973.9779
EMAIL: BRENT@HUTCHENGINEERING.COM

MECHANICAL/PLUMBING ENGINEER
COMPANY: MCDONALD CONSULTING
CONTACT: PETER MCDONALD
ADDRESS: 10698 AMESBURY WAY, HIGHLANDS RANCH, CO 80126
PHONE (303) 791-2732
EMAIL: PMCDESIGN@COMCAST.NET

GENERAL CONTRACTOR
COMPANY: BVB GENERAL CONTRACTORS
CONTACT: JON BURDICK
ADDRESS: 1289 S 4TH AVENUE, BRIGHTON, CO 80601
PHONE 303.637.0981
EMAIL JON@BVGCI.COM

DENTAL EQUIPMENT
COMPANY: HENRY SCHEIN
CONTACT: MIKE STANISLAWSKI
PHONE 480.296.4041
EMAIL: MIKE.STANISLAWSKI@HENRYSCHEIN.COM

TECHNOLOGY CONSULTANT
COMPANY: CORNERSTONE TECHNOLOGY CONSULTANTS
CONTACT: JORDAN JANZ
PHONE 303.241.9758
EMAIL: JJANZ@CSTONESOLUTIONS.NET

Sanders and Soult

Family Dentistry

Tenant Remodel
1444 S Potomac Suite 100
Aurora, CO

APPLICABLE BUILDING CODES

2021 INTERNATIONAL BUILDING CODE (IBC)
2021 INTERNATIONAL MECHANICAL CODE (IMC)
2021 INTERNATIONAL FUEL GAS CODE (IFGC)
2021 INTERNATIONAL FIRE CODE (IFC)
2021 INTERNATIONAL PLUMBING CODE (IPC)
2021 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
2020 NATIONAL ELECTRICAL CODE (NEC)

TENANT/OWNER APPROVAL

PLEASE REVIEW THESE DOCUMENTS CAREFULLY. THE INFORMATION PROVIDED ON THESE DOCUMENTS REFLECTS AGREEMENT BETWEEN OWNER AND TENANT. REVISIONS HENCEFORTH MAY BE SUBJECT TO ADDITIONAL FEES INCURRED BY THE TENANT, INCLUDING, BUT NOT LIMITED TO, DESIGN FEES, CONSTRUCTION COSTS AND SUBSEQUENT EXTENSION OF THE CONSTRUCTION COMPLETION DATE.

TENANT/OWNER SIGNATURE AND DATE_____

PROJECT/BUILDING DATA

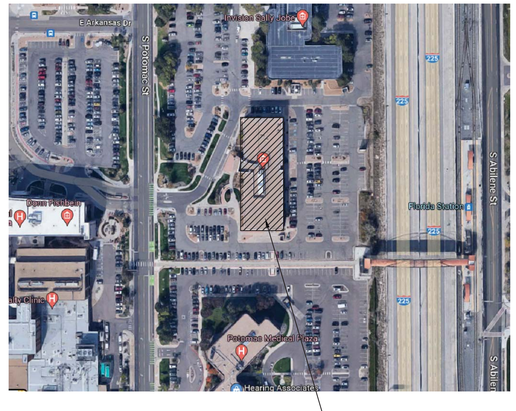
ZONING:	MU-OI
BUILDING CONSTRUCTION TYPE:	II-B, FULLY SPRINKLERED
BUILDING INFORMATION:	EXISTING 3 STORY BUILDING, 40' TALL 68,160 GROSS SF
PROJECT OCCUPANCY GROUP:	B - DENTAL OFFICE
PROJECT SQUARE FOOTAGE:	4,742 SF
PROJECT OCCUPANCY LOAD:	BUILDING GROSS AREA: 3,545 SF OCCUPANT LOAD RATIO 1:150 TOTAL: 24 OCCUPANTS
RESTROOMS:	BUILDING PROVIDES EXISTING FLOOR COMMON RESTROOMS - SEPARATE MENS FROM WOMENS FACILITIES. THIS BUILDING RELIES ON INDIVIDUAL TOILET FACILITIES IN EACH TENANT SUITE AS PART OF THE REQUIRED FIXTURE CALCULATIONS. TWO EXISTING SINGLE USER RESTROOMS EXIST IN THIS SUITE, AND BOTH ARE BEING DEMO'D AND REPLACED (2) SINGLE USER ACCESSIBLE RESTROOMS ARE PROVIDED AS A PART OF THIS PROJECT FOR TENANT USE
PLUMBING:	EXISTING COMMON AREA DRINKING FOUNTAINS ARE REQUIRED AND PROVIDED IN BUILDING COMMON SPACE EXISTING BUILDING COMMON UTILITY ROOM CONTAINS REQUIRED SERVICE SINK
SEPARATION OF USES:	MEDICAL GAS ROOM: 1 HOUR SEPARATION EXISTING EXIT PASSAGEWAY TO REMAIN : 1 HOUR SEPARATION EXISTING SHAFT WALLS TO REMAIN: 1 HOUR SEPARATION
REQUIRED EXITS:	2 ARE REQUIRED AND PROVIDED, SEE EGRESS PLAN SHEET A001
TRAVEL DISTANCE:	NOT TO EXCEED 300' PER 2021 IBC TABLE 1017.2
FIRE PROTECTION:	FULLY SPRINKLERED AND ALARMED BUILDING
REMOTENESS OF EXITS:	SHALL BE LESS THAN (½) OF THE LENGTH OF THE MAXIMUM OVERALL DIAGONAL OF THE AREA SERVED PER 2015 IBC 1007.1.1 EXCEPTION 2 > (½) THE OVERALL DIAGONAL PROVIDED

SHEET INDEX

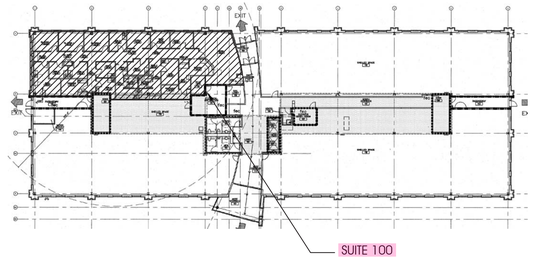
ARCHITECTURAL
A000 PROJECT DATA
A001 EGRESS PLAN
A100 DEMOLITION PLAN
A200 ARCHITECTURAL FLOOR PLAN
A201 DOORS AND GLAZING
A400 REFLECTED CEILING PLAN
A500 MILLWORK/FINISH PLAN
A600 FURNITURE LAYOUT
A700 CONSTRUCTION DETAILS
A800 INTERIOR ELEVATIONS
A801 INTERIOR ELEVATIONS
A900 MILLWORK DETAILS
A901 MILLWORK DETAILS

MECHANICAL/PLUMBING
P-001 PLUMBING LEGEND & GENERAL NOTES
P-002 PLUMBING SPECIFICATIONS
P-111 FLOOR PLAN - PLUMBING WASTE & VENT
P-121 FLOOR PLAN - PLUMBING WATER
P-131 FLOOR PLAN - PLUMBING DENTAL PIPING
P-501 PLUMBING DETAILS
P-601 PLUMBING SCHEDULES
P-701 PLUMBING RISER DIAGRAM
P-702 DENTAL PIPING RISER DIAGRAMS
M-001 HVAC LEGEND & GENERAL NOTES
M-002 HVAC SPECIFICATIONS
M-111 FLOOR PLAN - HVAC
M-501 HVAC DETAILS
M-601 HVAC SCHEDULES

ELECTRICAL
E1 POWER PLAN,
E2 LIGHTING PLAN



1 AREA MAP
SCALE: NTS



2 1ST FLOOR - 1444 S POTOMAC
SCALE: NTS

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989 compass drive
erie, colorado
80516
303.505.7647

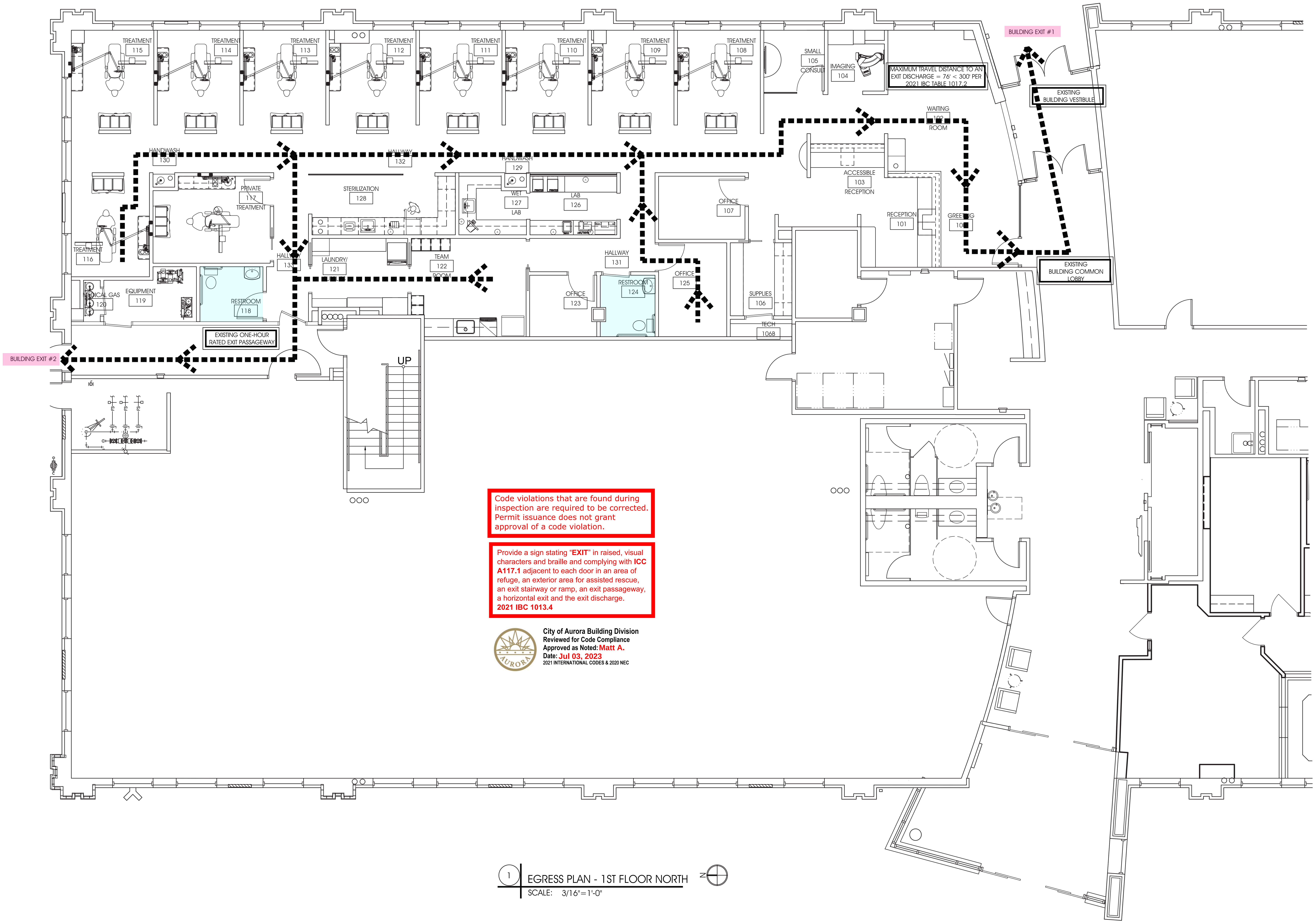
COLORADO LICENSED
HEATHER RICHARDS
40429
ARCHITECT

06.18.23

Sanders and Soult
Family Dentistry
Tenant Remodel
1444 S. Potomac Suite 100
Aurora, CO

NO.	DATE	DESCRIPTION
	06/18/23	FOR BUILD PERMIT

PROJECT NUMBER: SS101
DRAWN BY: HR
CHECKED BY: HR
SHEET TITLE: PROJECT INFORMATION
SHEET NUMBER: A000



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

Provide a sign stating "**EXIT**" in raised, visual characters and braille and complying with **ICC A117.1** adjacent to each door in an area of refuge, an exterior area for assisted rescue, an exit stairway or ramp, an exit passageway, a horizontal exit and the exit discharge. **2021 IBC 1013.4**

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Matt A.
Date: Jul 03, 2023
2021 INTERNATIONAL CODES & 2020 NEC

1 EGRESS PLAN - 1ST FLOOR NORTH
SCALE: 3/16"=1'-0"

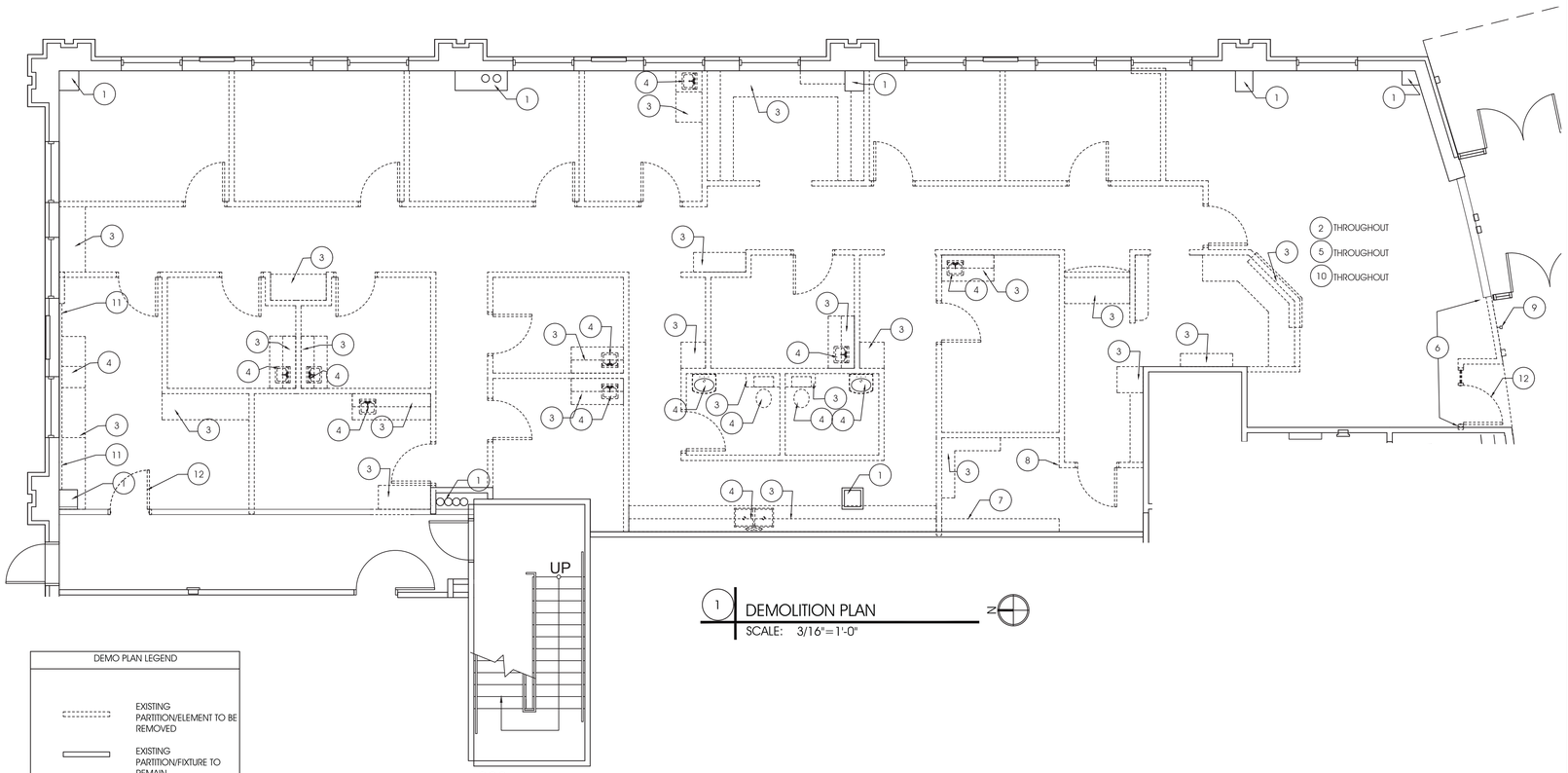
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COLORADO LICENSED HEATHER RICHARDS 404299 ARCHITECT
06.18.23

Sanders and Soult Family Dentistry
Tenant Remodel
1444 S. Potomac Suite 100
Aurora, CO

NO.	DATE	DESCRIPTION
	06/18/23	FOR BUILD PERMIT

PROJECT NUMBER: SS101
DRAWN BY: HR
CHECKED BY: HR
SHEET TITLE: EGRESS PLAN
SHEET NUMBER: A001



1 DEMOLITION PLAN
SCALE: 3/16"=1'-0"

DEMO PLAN LEGEND

- EXISTING PARTITION/ELEMENT TO BE REMOVED
- EXISTING PARTITION/FIXTURE TO REMAIN

DEMO PLAN KEYED NOTES

1. EXISTING COLUMN/PLUMBING TO REMAIN, USE CARE DURING DEMOLITION
2. REMOVE EXISTING FLOORING AND BASE
3. REMOVE EXISTING CABINETRY
4. REMOVE EXISTING PLUMBING FIXTURE, CAP/PULL BACK AS DETAILED
5. REMOVE EXISTING CEILING GRID AND LIGHTING THROUGHOUT
6. REMOVED EXISTING TENANT ENTRY AND WALL AS SHOWN
7. REMOVE EXISTING FILE SYSTEM
8. REMOVE EXISTING TECHNOLOGY RACK AND ALL ABANDONED CABLING
9. REMOVE AND SALVAGE EXISTING BUILDING STANDARD LIGHT
10. REMOVE ALL WALLCOVERING FROM ALL WALLS TO REMAIN
11. REMOVE ADDED FURRING THAT CREATED WALL CAVITY SPACE FOR PLUMBING
12. CAREFULLY REMOVE AND SALVAGE ALL DOOR/FRAME/HARDWARE COMPONENTS FOR POSSIBLE RELOCATION IN THIS PROJECT

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

DEMOLITION GENERAL NOTES

1. ASBESTOS VERIFICATION: GENERAL CONTRACTOR TO TEST FOR ASBESTOS CONTAINING MATERIAL WHICH ARE IMPACTED BY NEW CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, RESILIENT FLOOR TILE, INSULATION OF PIPING AND/OR MECHANICAL EQUIPMENT AND TEXTURED CEILINGS. IF TESTED POSITIVE, PROCEED PER LOCAL AND FEDERAL GUIDELINES OR AUTHORITIES HAVING JURISDICTION FOR ASBESTOS ABATEMENT PRIOR TO ALL OTHER DEMO OR NEW CONSTRUCTION WORK.
2. REMOVE EXISTING DOOR HARDWARE AS NECESSARY. REUSE EXISTING CORES IF POSSIBLE.
3. REMOVE EXISTING PARTITIONS, STUDS, ELECTRICAL, TELEPHONE, DATA, SWITCHES, THERMOSTATS, TELEPHONE MOUNTING BOARDS, WINDOWS, DOORS, FRAMES, AND MILLWORK WHERE DEMO WORK OCCURS ON PLAN.
4. REMOVE EXISTING FLOORING AND GLUE WHERE DEMO WORK OCCURS ON PLAN. REMOVE EXISTING BASE WHERE DEMO WORK OCCURS ON PLAN. REMOVE EXISTING WALLCOVERING WHERE DEMO WORK OCCURS ON PLAN.
5. REMOVE EXISTING PLUMBING FIXTURES WHERE DEMO WORK OCCURS ON PLAN. CAP OFF PLUMBING. IN PARTITIONS BEING REMOVED AND/OR LOCATIONS SPECIFIED, STRIP OUT ALL SOIL LINES TO BE FLUSH WITH SLAB OR BELOW SLAB AND PROPERLY CAP AND SEAL.
6. AT PARTITIONS BEING REMOVED, STRIP OUT ALL POWER TO NEAREST J-BOX ABOVE SUSPENDED CEILING. AT J-BOX, WIRE NUT ALL TERMINATIONS AND CLOSE BOX.
7. REMOVE EXISTING LIGHT FIXTURES, GYPSUM BOARD CEILINGS AND SOFFITS, AND ACOUSTICAL CEILING TILE AND GRID AS NOTED ON PLAN(S).
8. CAREFULLY REMOVE AND DELIVER TO TENANT OR BUILDING OWNER ALL SALVAGEABLE ITEMS SUCH AS DOORS, HARDWARE, PLUMBING FIXTURES, WINDOWS, LIGHT FIXTURES, CEILING TILE, THERMOSTATS, OUTLETS, SWITCHES, WINDOW COVERINGS AND GRILLES. REUSE ITEMS IF POSSIBLE OR AS NOTED.
9. THE GENERAL CONTRACTOR SHALL PROPERLY SEAL AND SECURE ADJOINING AREAS SO THAT THEY ARE NOT IMPACTED BY DEMOLITION. THE GENERAL CONTRACTOR SHALL PROVIDE TEMPORARY PROTECTION WHERE OPENINGS CREATED AS A RESULT OF DEMOLITION EXPOSE THIS SCOPE OF WORK TO THE EXTERIOR ELEMENTS OR WEATHER.
10. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXISTING MATERIALS DURING DEMOLITION.
11. IF DEMOLITION OCCURS IN AREAS ADJACENT TO A COMMON ELEVATOR LOBBY OR OTHER BUILDING CORRIDOR, LEAVE EXTRA BUILDING FLOORING, BASE, WALLCOVERING, AND CEILING IN THE AREA TO BE DEMOLISHED TO ENSURE A CLEAR TRANSITION OF FINISHES.
12. COORDINATE WITH TENANT OR BUILDING OWNER FOR AREA TO STAGE MATERIALS FOR REUSE.

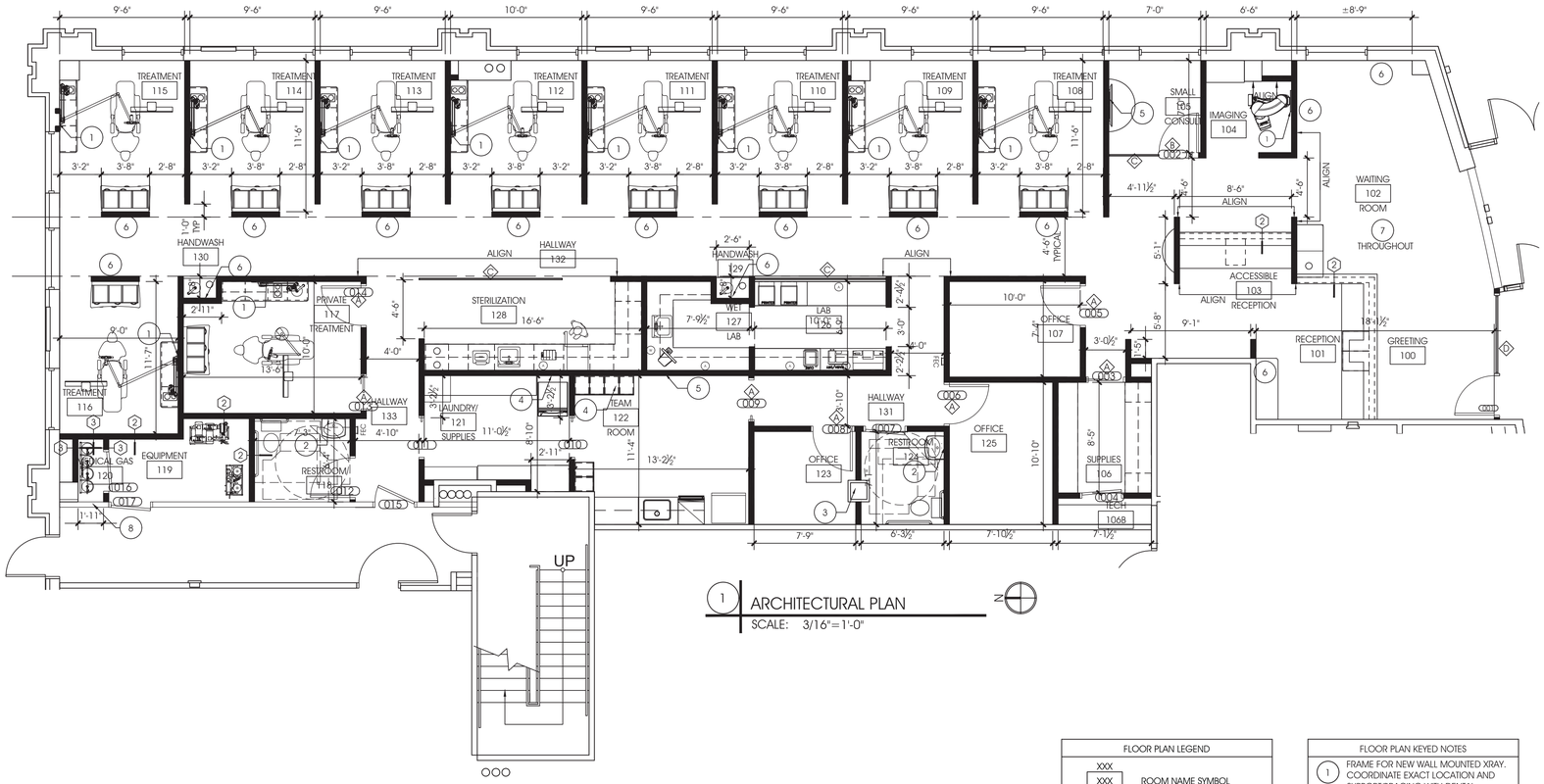
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1444 S. Potomac Suite 100
Aurora, CO

NO.	DATE	DESCRIPTION
	06/18/23	FOR BUILD PERMIT

PROJECT NUMBER: SS101
DRAWN BY: HR
CHECKED BY: HR
SHEET TITLE: DEMOLITION PLAN
SHEET NUMBER: A100



FLOOR PLAN LEGEND	
XXX / XXX / XXX	ROOM NAME SYMBOL
X / A/XXX	DETAIL SYMBOL
	WINDOW TYPE SYMBOL
X/A/XXX	ELEVATION SYMBOL
	DOOR NUMBER - REFER TO DOOR SCHEDULE SHEET A201
FEC	FIRE EXTINGUISHER CABINET
	EXISTING WALL TO REMAIN
X	NEW INTERIOR WALL WITH TYPE INDICATION
1	TYPICAL WALL (UNLESS NOTED OTHERWISE) FRAME WALL TO 6" ABOVE HIGHEST ADJACENT CEILING REFER TO DETAIL 4/A700
2	SOUND RATED WALL REFER TO DETAIL 6/A700
3	1 HOUR RATED WILL REFER TO DETAIL 5/A700

WALL TYPE 1 THROUGHOUT UNLESS NOTED OTHERWISE

NOTE: REFER TO DETAILS 1/A700, 2/A700, AND 3/A700 FOR TYPICAL WALL BRACING

FLOOR PLAN KEYED NOTES	
1	FRAME FOR NEW WALL MOUNTED XRAY. COORDINATE EXACT LOCATION AND SUPPORT/BRACING WITH DENTAL EQUIPMENT PROVIDER
2	PROVIDE ADEQUATE IN-WALL BRACING/SUPPORT FOR WALL MOUNTED PLUMBING FIXTURE AS SPECIFIED IN PLUMBING DRAWINGS THIS SET
3	EXISTING STRUCTURAL COLUMN TO REMAIN, FRAME WALL TIGHTLY
4	6" STUDS THIS AREA FOR DRYER VENTING
5	PROVIDE CONCEALED BACKING IN WALL FOR MOUNTED EQUIPMENT (TECHNOLOGY, TENANT, OR DENTAL)
6	PROVIDE ADEQUATE WALL SUPPORT FOR BRICK APPLICATION
7	AT ALL EXISTING WALL TO REMAIN PROVIDE SKIMMED/SANDED LEVEL 4 DRYWALL FINISH
8	THIS WALL IS ALREADY 1 HOUR RATED FOR EXIT PASSAGEWAY. ENSURE RATING IS MAINTAINED

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City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Matt A.
Date: Jul 03, 2023
2021 INTERNATIONAL CODES & 2020 NEC

CONSTRUCTION PLAN GENERAL NOTES

FRAMING

1. PROVIDE METAL STUD CROSS BRACING FOR SUPPORT OF EQUIPMENT, FINISH HARDWARE ITEMS AND MISCELLANEOUS WALL SUPPORTED ITEMS.
2. PROVIDE BLOCKING BEHIND ALL WALL MOUNTED DOOR STOPS, AND AS REQUIRED FOR ALL MILLWORK, ETC.
3. ALL WOOD BLOCKING, FURRING AND BACKING SHALL BE NON-COMBUSTIBLE FIRE RETARDANT TREATED WOOD OR METAL. ALL REQUIRED RATED MATERIALS SHALL BEAR IDENTIFICATION SHOWING FIRE PERFORMANCE RATING THEREOF.
4. PROVIDE STRUCTURAL KICKERS FOR PARTITIONS AND WINDOWS THAT DO NOT EXCEED HEIGHT OF SUSPENDED CEILING. KICKERS SHALL BE AT 45 DEGREE ANGLE TO PARTITION AND BE ANCHORED TO THE UNDERSIDE OF ROOF DECK AT 48" O.C.
5. ALL WALLS CONTAINING WASTE LINES SHOULD BE CONSTRUCTED OF 6" STUDS OR AS REQUIRED TO ACCOMMODATE PLUMBING LINES.
6. STUD PARTITIONS TO BE ANCHORED SO AS TO RESIST A LATERAL LOAD OF 5 P.S.F. AS FOLLOWS: BOTTOM PLATE: ANCHOR TO SUB-FLOOR WITH .300" POWER DRIVEN PINS AT 24" O.C. TOP PLATE: FASTEN TO DECK OR CEILING GRID AS INDICATED.
7. DIMENSIONS ARE FROM FINISHED FACE TO FINISHED FACE UNLESS NOTED OTHERWISE. CENTER PARTITION ON CENTERLINE OF EXTERIOR WINDOW WALL MULLION, UNLESS NOTED OTHERWISE. ALIGN PARTITION WITH ONE SIDE OF COLUMN (OR OTHER PLAN ELEMENT) OR BY PASS SIDE OF COLUMN, EITHER AS INDICATED. ALIGN NEW PARTITIONS WITH EXISTING PARTITION OR OTHER NEW PARTITIONS OTHERWISE LOCATED. PARTITIONS, END OF PARTITIONS, AND OTHER ELEMENTS WHICH APPEAR TO ALIGN WITH EACH OTHER ARE INTENDED TO ALIGN UNLESS OTHERWISE DIMENSIONED. PERIMETER WALLS BELOW WINDOWS ARE TO BE TAPED, MUDDED, AND PAINTED WITH TWO PRIME COATS AND TWO FINISH COATS. AT TERMINATION OF MILLWORK AT GYPSUM BOARD PARTITION, PROVIDE A MINIMUM SURFACE OF 5/8" GYPSUM BOARD WALL FACE BEYOND THE ACCEPTED MILLWORK. CONTRACTOR TO REPLACE EXISTING FURRING WITH NEW FURRINGS AT EXISTING CONCRETE BLOCK WALLS TO INSURE THAT ALL ELECTRICAL/TELEPHONE/DATA/MISC. COVER PLATES AND JUNCTION BOXES WILL FLUSH OUT EXACTLY TO FINISHED FACE SO THAT NO GAPS EXIST. ALL PENETRATION OF EXISTING FIRE-RATED MEMBRANES SHALL BE PROTECTED AS REQUIRED. REPAIR ANY DAMAGE TO EXISTING FIRE-PROTECTED MATERIALS.
8. IF EXISTING PARTITIONS ARE TO BE EXTENDED OR ALIGNED WITH NEW PARTITIONS, FIELD VERIFY EXISTING STUD SIZE AND GYPSUM BOARD THICKNESS AND MATCH EXISTING CONDITIONS.

DRYWALL

9. FURR OUT AROUND ALL EXISTING COLUMNS AS SHOWN IF FURRING IS NOT ALREADY EXISTING, UNLESS NOTED OTHERWISE.
10. ALL EXISTING EXPOSED EXTERIOR, CMU, AND UNFINISHED WALLS SHALL RECEIVE FURRING AT TENANT SIDE ONLY UNLESS NOTED OTHERWISE.
11. ALL WALLS SHALL BE CONSTRUCTED STRAIGHT AND TRUE. WALLS TO RECEIVE WALLCOVERING MUST BE FLOATED OUT, IF REQUIRED, AND SIZED PRIOR TO INSTALLATION OF WALLCOVERING.
12. WHERE NEW WALL ALIGNS WITH EXISTING, REMOVE EXISTING CORNER BEAD, TAPE TRANSITION, FLOAT AND FINISH.
13. FLOAT EXISTING WALLS AS NECESSARY AND PROPERLY PREPARE TO RECEIVE NEW WALLCOVERING OR PAINT.
14. ALL WALLS (EXISTING TO REMAIN AND NEW) TO HAVE SMOOTH LEVEL 4 DRYWALL FINISH, U.N.O. COAT WITH DRYWALL PRIMER OF HIGH QUALITY/HIGH SOLIDS PRIOR TO THE APPLICATION OF FINAL PAINT.
15. PROVIDE WATER-RESISTANT GYPSUM BOARD AT ALL WET WALLS AND ADJACENT SIDE WALLS. ALL WALLS WITH TILE SHALL BE INSTALLED OVER WATER RESISTANT GYPSUM BOARD OR OVER REGULAR GYPSUM BOARD INSTALLED IN ACCORDANCE WITH GA-216 OR ASTM C 840.

OTHER

16. ALL OUTLETS, RECEPTACLES, SWITCHES, AND COMPONENTS TO BE IN COLOR WHITE U.N.O. IF MAJORITY OF OUTLETS ARE EXISTING TO REMAINING, GC SHALL COORDINATE WITH DESIGNER TO DETERMINE SWITCH/RECEPTACLE AND COVERPLATE COLOR.

CONSTRUCTION PLAN SPECIFICATIONS

FEC-1
ITEM: FIRE EXTINGUISHER/CABINET-RECESSED
MFG.: J.L. INDUSTRIES
EXTINGUISHER CABINET
PRODUCT: MFG: J.L. INDUSTRIES, 1028V10 ACADEMY IN #180 CLEAR ANODIZED ALUMINUM, ALUMINUM TUB
ROUGH WALL OPENING: 11½" W X 25"H X 2 1/4"D (NON-RATED WALL)
EXTINGUISHER
PRODUCT: COSMIC 10E 4A-60BC UL RATED
***LOCATION:* REFER TO FLOOR PLAN**
NOTE: PROVIDE FIRE EXTINGUISHERS AS NECESSARY PER FIRE MARSHALL'S LOCATION. FIRE EXTINGUISHERS SHALL BE MOUNTED AT 48" A.F.F. MAXIMUM TO CENTER OF UNITS. VERIFY ALL LOCATIONS WITH ARCHITECT.
QUANTITY: **2**

PLUMBING AND MILLWORK ACCESSORIES

RR-0 ITEM: GRAB BARS
QUANTITY: REFER TO ENLARGED RESTROOM DETAIL
PRODUCT: PROVIDE BOBRICK B6806 SERIES, STAINLESS STEEL 36", 42", AND 18"
NOTE: FOR HANDICAPPED STALLS OR RESTROOMS, GRAB BARS SHALL BE MOUNTED AT 33"-36" A.F.F., 36"W BEHIND TOILET WITHIN 6" OF SIDE WALL AND 54" MINIMUM FROM REAR WAKK ON SIDE WITHIN 12" OF WALL BEHIND. PROVIDE VERTICAL GRAB BAR 18" MINIMUM IN LENGTH MOUNTED WITH BOTTOM OF BAR BETWEEN 39"-41" ABOVE THE FLOOR AND CENTERLINE OF THE BAR BETWEEN 39" AND 41" FROM THE REAR WALL. FOR 36" WIDE ALTERNATE HANDICAPPED STALLS, GRAB BARS SHALL BE 42" WIDE ON BOTH SIDES AND MOUNTED WITHIN 12" OF WALL BEHIND. PROVIDE STEEL BACK PLATE FOR GRAB BAR WALL SUPPORT-ATTACH PLATE TO METAL STUDS WITH SCREWS TO SUPPORT 250 LB. POINT LOAD.

RR-1 ITEM: MIRROR
PRODUCT: OWNER PROVIDED MIRROR (CONTRACTOR INSTALLED)
SIZE: VARIES
NOTE: MIRRORS SHALL BE INSTALLED IN LOCATION SHOWN. MIRRORS SHALL BE MOUNTED WITH BOTTOM EDGE AT TOP OF BACKSPLASH. (40" A.F.F. MAXIMUM). MIRROR LOCATION SHOULD BE BLOCKED IN PRIOR TO TILE BEING INSTALLED SO FRONT FACE OF MIRROR ALIGNS WITH FRONT FACE OF TILE
QUANTITY:5 - HANDWASH STATIONS, RESTROOMS, AND CHECKOUT

RR-2 ITEM: RECESSED PAPER TOWEL DISPENSER
PRODUCT: BOBRICK B-35903 RECESSED PAPER TOWEL DISPENSER
QUANTITY: 2- RESTROOMS

RR-3 ITEM: DOUBLE ROLL TOILET PAPER DISPENSER - RECESS MOUNTED
PRODUCT: BOBRICK B-4388, STAINLESS STEEL
NOTE:CENTERLINE OF TOILET PAPER DISPENSERS SHALL BE INSTALLED WITHIN 7-9" OF THE FRONT EDGE OF THE TOILET SEAT, 15" A.F.F. MINIMUM TO BOTTOM OF DISPENSER AND 48" AFF MAXIMUM TO TOP OF DISPENSER.
ROUGH WALL OPENING: 6⅛" WIDE X 11½"HIGH X 3⅛" RECESSED DEPTH
QUANTITY: 2

RR-4 ITEM: C-FOLD OR MULTI-FOLD PAPER TOWEL DISPENSER - SURFACE MOUNTED
PRODUCT: BOBRICK B-26212 SURFACE MOUNTED PAPER TOWEL DISPENSER WITH TOWELMATE DISPENSER
NOTE: MOUNT WITH FOUR #10 X 1 ½" SHEET METAL SCREWS AT FOUR OF THE EIGHT MOUNTING HOLES INDICATED BY AN 'S'. PROVIDE WALL BACKING. COORDINATE MOUNTING HEIGHT WITH TENANT
LOCATION: STAFF, LAB. COORDINATE MOUNTING LOCATION PRIOR TO INSTALLING
QUANTITY: 2

RR-5 ITEM: ACRYLIC PAPER TOWEL DISPENSER
PRODUCT: HIIMIEI ACRYLIC C FOLD PAPER TOWEL DISPENSER https://amzn.to/2TmWaUb
QUANTITY: 3 - HANDWASH STATIONS AND PRIVATE OPERATORY

MIL-1 ITEM: 6" STAINLESS STEEL TRASH GROMMET TRIM RING
NOTE: ENSURE THAT TRIM RING EXTENDS BELOW BOTTOM EDGE OF COUNTER SURFACE
QUANTITY: 5 (HANDWASH, 2 AT STERILE, BEVERAGE)

MIL-2 ITEM: THRU-CABINET DOUBLE GLOVE DISPENSER
MFG: GREENO MANUFACTURING, GBH-D TRIPLE WITH RECTANGULAR BLACK GROMMETS
QUANTITY: 2 - AT STERILE AND LAB

MIL-3 ITEM: THRU CABINET PAPER TOWEL DISPENSER
PRODUCT: GREENO MANUFACTURING #1T-EC UNIT EXTRA CAPACITY THRU-CABINET MOUNT
QUANTITY: 1 (STERILE, TO COME THRU UNDERSIDE OF CABINET)

MIL-4 ITEM: GREENO MFG SHARPS/TRASH COLLECTION WC-4-TCSCH-L WITH 185 SHARPS COLLECTOR
QUANTITY: 10 (TREATMENT ROOM COUNTERS)

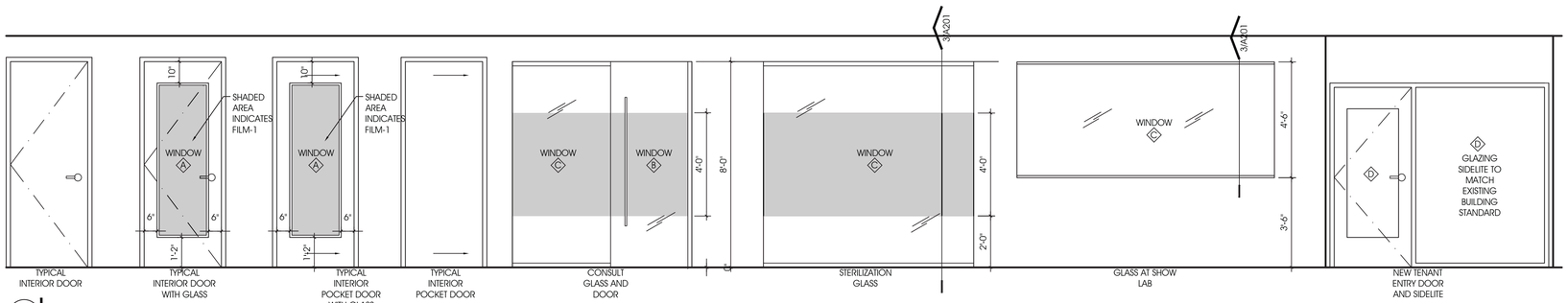
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COLORADO LICENSED
HEATHER RICHARDS
40429
ARCHITECT
06.18.23

Sanders and Soult Family Dentistry
Tenant Remodel
1444 S. Potomac Suite 100
Aurora, CO

NO.	DATE	DESCRIPTION
	06/18/23	FOR BUILD PERMIT

PROJECT NUMBER: SS101
DRAWN BY: HR
CHECKED BY: HR
SHEET TITLE: ARCHITECTURAL FLOOR PLAN
SHEET NUMBER: A200



1 DOOR AND GLAZING ELEVATIONS

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

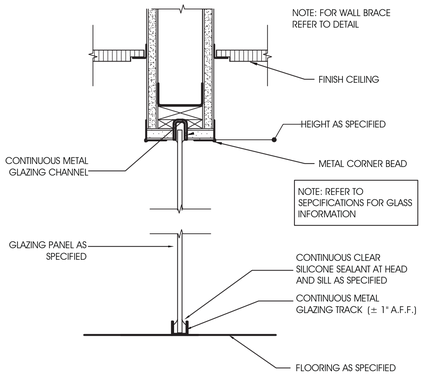
Door Schedule - Sanders and Soult

#	Nominal Size	Description	Door				Fire Rating	Hardware Set	Frame			Comments
			Thickness	Material	Glazing/Size	Finish			Type	Material/Size	Finish	
1	3' WIDE DOOR X 7' (VERIFY)	NEW EBS BUILDING CORRIDOR ENTRY WITH FULL LITE AND ADJACENT SIDELITE	1 3/4"	SC WOOD	MATCH EBS FULL LITE DOOR (2ND FLOOR)	STAIN TO MATCH EXISTING BUILDING STANDARD	EBS	G	EBS (HM)	MATCH EBS	EBS	PROVIDE SLIMLINE CLOSER, KEY PER EBS AND TENANT PREFERENCE, NOTE ADJACENT SIDELITE B
2	3'X8'	NEW GLASS DOOR (HERCULITE OR EQUAL)	1/2"	TEMPERED GLAZING	FULL	N/A	N/A	F	NONE	NONE	NONE	PROVIDE CORNER PATCH FITTINGS AT GLAZING, PROVIDE MECHANISM SO DOOR CAN REST IN OPEN OR CLOSED POSITION. PROVIDE 'FROSTED' VINYL FILM-1 ON GLAZING AS INDICATED ON ELEVATIONS
3	2'-9"X8'	NEW WOOD POCKET DOOR WITH GLAZING INSERT	1 3/4"	SC WOOD	WNDW-A	CUSTOM STAIN TO MATCH WOOD-1	NONE	D	CUSTOM	POPLAR STAINED TO MATCH WOOD-1	STAINED TO MATCH WOOD-1	PROVIDE 'FROSTED' VINYL FILM-1 ON GLAZING WITH 1" CLEAR BORDER
4	3'-0"X8'	NEW INTERIOR WOOD DOOR	1 3/4"	SC WOOD	NONE	CUSTOM STAIN TO MATCH WOOD-1	NONE	E	METAL	TIMELY TA-8 SNAP IN PLACE	BLACK	PROVIDE GRILL IN DOOR FOR VENTILATION - REFER TO MECHANICAL SHEETS THIS SET. PROVIDE SLIMLINE CLOSER AND FLIP DOWN HOLDOPEN
5	3'X8'	NEW INTERIOR WOOD DOOR WITH GLASS LITE	1 3/4"	SC WOOD	WNDW-A	CUSTOM STAIN TO MATCH WOOD-1	NONE	B	METAL	TIMELY TA-8 SNAP IN PLACE	BLACK	NO FILM-1 THIS DOOR
6	3'X8'	NEW INTERIOR WOOD DOOR WITH GLASS LITE	1 3/4"	SC WOOD	WNDW-A	CUSTOM STAIN TO MATCH WOOD-1	NONE	B	METAL	TIMELY TA-8 SNAP IN PLACE	BLACK	
7	3'X8'	NEW INTERIOR WOOD RR DOOR	1 3/4"	SC WOOD	NONE	CUSTOM STAIN TO MATCH WOOD-1	NONE	C	METAL	TIMELY TA-8 SNAP IN PLACE	BLACK	PROVIDE COAT HOOK AT BACK OF DOOR
8	3'X8'	NEW INTERIOR WOOD DOOR WITH GLASS LITE	1 3/4"	SC WOOD	WNDW-A	CUSTOM STAIN TO MATCH WOOD-1	NONE	B	METAL	TIMELY TA-8 SNAP IN PLACE	BLACK	
9	3'X8'	NEW WOOD POCKET DOOR WITH GLAZING INSERT	1 3/4"	SC WOOD	WNDW-A	CUSTOM STAIN TO MATCH WOOD-1	NONE	D	CUSTOM	POPLAR STAINED TO MATCH WOOD-1.	STAINED TO MATCH WOOD-1	PROVIDE 'FROSTED' VINYL FILM-1 ON GLAZING.
10	3'X8'	NEW WOOD POCKET DOOR	1 3/4"	SC WOOD	NONE	CUSTOM STAIN TO MATCH WOOD-1	NONE	D	CUSTOM	POPLAR STAINED TO MATCH WOOD-1.	STAINED TO MATCH WOOD-1	
11	3'X8'	NEW WOOD POCKET DOOR	1 3/4"	SC WOOD	NONE	CUSTOM STAIN TO MATCH WOOD-1	NONE	D	CUSTOM	POPLAR STAINED TO MATCH WOOD-1.	STAINED TO MATCH WOOD-1	
12	3'X8'	NEW INTERIOR WOOD RR DOOR	1 3/4"	SC WOOD	NONE	CUSTOM STAIN TO MATCH WOOD-1	NONE	C	METAL	TIMELY TA-8 SNAP IN PLACE	BLACK	PROVIDE COAT HOOK AT BACK OF DOOR
13	2'-7"X8'	NEW WOOD POCKET DOOR WITH GLAZING INSERT	1 3/4"	SC WOOD	WNDW-1	CUSTOM STAIN TO MATCH WOOD-1	NONE	D	CUSTOM	POPLAR STAINED TO MATCH WOOD-1.	STAINED TO MATCH WOOD-1	PROVIDE 'FROSTED' VINYL FILM-1 ON GLAZING.
14	3'X8'	NEW INTERIOR WOOD DOOR WITH GLASS	1 3/4"	SC WOOD	WNDW-1	CUSTOM STAIN TO MATCH WOOD-1	NONE	A	METAL	TIMELY TA-8 SNAP IN PLACE	BLACK	
15	REL	RELOCATED DOOR FROM FORMER TENANT STAFF EGRESS	REL	SC WOOD	NONE	EBS	60 MIN	REL	REL	REL	EBS	EVALUATE DOOR AND HARDWARE FOR REUSE/RELOCATION. PROVIDE DOOR CLOSER AND REKEY PER TENANT AND BUILDING PREFERENCE
16	3'X7'	ONE HOUR RATED WOOD DOOR	1 3/4"	SC WOOD	NONE	CUSTOM STAIN TO MATCH WOOD-1	1 HOUR	E WITH CLOSER	EBS	HOLLOW METAL - MATCH EBS	EBS	PROVIDE ALL REQUIRED FITTINGS, SWEEPS, AND SEALS TO MAINTAIN 1 HOUR FIRE AND SMOKE RATING. PROVIDE SLIMLINE DOOR CLOSER
17	3'X7'	NEW EBS BUILDING CORRIDOR DOOR	1 3/4"	SC WOOD	NONE	EBS	60 MIN	E	HM	RATED BUILDING STANDARD (EBS) RELOCATED	PAINT TO MACH EBS	KEY TO TENANT AND BUILDING PREFERENCE. PROVIDE SLIMLINE DOOR CLOSER. PROVIDE PEMKO DROP DOWN DOOR BOTTOM TO SEAL DOOR OPENING AT BOTTOM, AND GASKETS TO HELP PREVENT SOUND TRAVEL

NOTE: REFER TO DOOR ELEVATIONS THIS SET FOR ADDITIONAL INFORMATION
NOTE: DOORS NOT DESIGNATED WITH A DOOR TYPE NUMBER ARE EXISTING TO REMAIN
ETR = EXISTING TO REMAIN
SC = SOLID CORE
EBS = MATCH EXISTING BUILDING STANDARD
HM = HOLLOW METAL
REL = RELOCATED DOOR

2 DOOR SCHEDULE

SCALE: N/A



3 SECTION AT GLAZING

SCALE: 3" = 1'-0"

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

Provide lever or other approved hardware on all new and relocated doors. **2017 ICC/ANSI 117.7 309.4**

Install Tempered or Safety Glazing at all Full Lite doors, and other locations as required by **2021 IBC, Section 2406**

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Matt A.
Date: Jul 03, 2023
2021 INTERNATIONAL CODES & 2020 NEC

DOOR/GLAZING GENERAL NOTES

GLAZING

1. IF EXISTING GLASS TO BE REUSED IS NOT TEMPERED GLASS, REPLACE WITH TEMPERED GLASS IF WINDOW IS WITHIN 24" OF A DOORWAY.
2. ALL GLAZING WITHIN 24" OF A DOORWAY SHALL BE TEMPERED.
3. TOUCH UP OR REPAINT EXISTING EXTERIOR WINDOW FRAMES, MULLIONS, AND SILLS AS NECESSARY IN AREAS OF NEW CONSTRUCTION.

DOORS

3. ALL OF THE MATERIALS USED IN THIS PROJECT SHALL BE LOW OR NO VOLATILE ORGANIC COMPOUND (VOC), AND LOW ODOR PRODUCTS INCLUDING BUT NOT LIMITED TO: ADHESIVES, STAINS, LATEX AND OIL BASED PAINTS, AND CLEANING CHEMICALS.
4. PROVIDE SHOP DRAWINGS ON ALL WOOD DOORS AND FRAMES, PRIOR TO ORDERING OF MATERIAL AND FABRICATION, FOR ARCHITECT COMMENTS AND APPROVAL. SHOP DRAWINGS THAT ARE NOT BOTH RECEIVED AND APPROVED BY ARCHITECT SHALL BE UNDERSTOOD TO BE "NOT APPROVED" BY THE ARCHITECT.
5. PROVIDE 1 SUBMITTAL SAMPLES OF ALL DOOR AND FRAME FINISHES FOR ARCHITECT APPROVAL, PRIOR TO ORDERING OF MATERIAL AND FABRICATION. SAMPLES THAT ARE NOT BOTH RECEIVED AND APPROVED BY ARCHITECT SHALL BE UNDERSTOOD TO BE "NOT APPROVED" BY THE ARCHITECT.
6. ALL INTERIOR DOORS TO HAVE 1/4" UNDERCUT. FIELD VERIFY ALL DOOR OPENING HEIGHTS PRIOR TO CUTTING DOORS.
7. EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. MANUALLY OPERATED EDGE OR SURFACE MOUNTED FLUSH BOLTS ARE PROHIBITED. IN GROUP "A", "B", "F", "M", AND "S" AND CHURCH TYPE OCCUPANCIES, KEY LOCKING HARDWARE MAY BE USED ON THE MAIN EXTERIOR EXIT DOORS IF THERE IS A VISIBLE SIGN OVER THE DOOR STATING "THESE DOORS TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED."
8. TOUCH UP STAIN ON ALL EXISTING WOOD DOOR FRAMES AND TRIM AS NECESSARY. REPAINT OR TOUCH UP ALL EXISTING METAL DOORS AND FRAMES AS NECESSARY.

DOOR HARDWARE

9. NEW DOOR HARDWARE SHALL INCLUDE: PASSAGE OR LOCKSET, 1½ PAIR OF BUTTS AND DOOR STOP (EITHER WALL MOUNTED OR FLOOR MOUNTED AS APPLICABLE). ALL HARDWARE SHALL HAVE THE SAME FINISH. GENERAL CONTRACTOR SHALL PROVIDE IF APPLICABLE MISSING COMPONENTS LISTED ABOVE AS REQUIRED FOR NEW CONSTRUCTION. ALL HARDWARE NEW AND/OR RELOCATED MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS. ALL ENTRY AND EXIT DOORS SHALL HAVE A CLOSER (UNLESS NOTED OTHERWISE). ALL DOORS SHALL HAVE A DOOR STOP AT ALL INTERIOR DOORS. FLOOR MOUNTED WHEREVER POSSIBLE AND WALL MOUNTED WHERE NOT. DOOR STOP SHALL MATCH SPECIFIED HARDWARE.
10. ALL NEW AND RELOCATED DOORS SHALL HAVE LEVER HARDWARE (UNLESS NOTED OTHERWISE) IN ORDER TO CONFORM TO CURRENT ADA AND HANDICAPPED REQUIREMENTS. IF HARDWARE MUST BE CHANGED OUT, USE EXISTING CORES IF POSSIBLE.
11. COORDINATE WITH TENANT FOR ALL MASTER KEY OR SEPARATE KEY REQUIREMENTS.

GENERAL DOOR/HARDWARE SPECS

GENERAL DOOR HARDWARE LEVER SPECIFICATION

MFG: SCHLAGEALX SERIES
SERIES: SATURN LEVER
FINISH: 626 SATIN CHROMIUM PLATED
STOPS: PROVIDE FLOOR STOPS WHEREVER POSSIBLE (VS. WALL STOP)

GENERAL FLUSH DOOR SPECIFICATION

MFG: VT INDUSTRIES OR EQUAL
WOOD SPECIES: STAIN GRADE PLAIN SLICED SELECT WHITE MAPLE
VENEER GRADE: A GRADE
CORE: COMPOSITE DOOR AT DOORS WITH LITES, SOLID AT DOORS WITH NO LITES
FINISH: FACTORY STAIN TO MATCH PLM-2

HARDWARE SETS

A ITEM: NEW INTERIOR PASSAGE SET

B ITEM: NEW ENTRANCE/OFFICE LOCKSET

C ITEM: NEW RESTROOM PRIVACY SET

D ITEM: POCKET DOOR KIT
PULL: TRIMCO 1069 IN SATIN STAINLESS FINISH

E ITEM: NEW STOREROOM LOCKSET

F ITEM: CR LAURENCE BACK TO BACK LADDER PULL, 24" LENGTH IN COLOR BLACK. BLACK PATCH FITTINGS AT PIVOTS, ENSURE DOOR OPENS IN BOTH DIRECTIONS, AND CAN BE HELD OPEN AT 90° AND AUTOMATICALLY DEFAULTS TO RETURN TO CLOSED POSITION

G ITEM: NEW EXISTING BUILDING STANDARD ENTRY DOOR LOCK

WINDOW TYPES

WNDW-A
ITEM: DOOR LITES (REFER TO SCHEDULE AND ELEVATIONS FOR SIZE/LOCATION)
MATERIAL: 1/4" TEMPERED CLEAR GLAZING
NOTE: PROVIDE FILM-1WITH 1" CLEAR BORDER AT INTERIOR GLAZING INDICATED ON DOOR SCHEDULE AND ELEVATIONS THIS SET. CONFIRM LOCATIONS WITH BLOOM STUDIO PRIOR TO INSTALLATION

WNDW-B
ITEM:HERCULITE TEMPERED GLASS DOOR, ¼" THICKNESS - REFER TO DOOR SCHEDULE
NOTE: PROVIDE FILM-1 AT ALL GLAZING OPENINGS. CONFIRM LOCATIONS WITH BLOOM STUDIO PRIOR TO INSTALLATION

WNDW-C
ITEM INTERIOR GLAZING PANELS
MATERIAL ⅜" CLEAR TEMPERED GLAZING SET INTO GLAZING TRACK (SATIN BLACK). CLEAR CAULK AT SEAMS
NOTE: REFER TO PLAN, ELEVATION 2/A201, AND SECTION 4/A201 FOR DETAILS AND INFORMATION
NOTE: PROVIDE FILM-1 AT INTERIOR GLAZING WHERE INDICATED ON ELEVATIONS., COORDINATED DESIGN AND LOCATION ONSITE WITH ARCHITECT

WNDW-D
ITEM: BUILDING STANDARD COMMON AREA CORRIDOR GLAZING
MATERIAL: ⅜" TEMPERED CLEAR GLAZING AT WINDOWS AND ¼" TEMPERED CLEAR GLAZING AT DOORS WHERE INDICATED ON DRAWINGS. MATCH EXISTING BUILDING STANDARD
FRAME: DOOR TO SIT IN BUILDING STANDARD PAINTED HOLLOW METAL FRAME

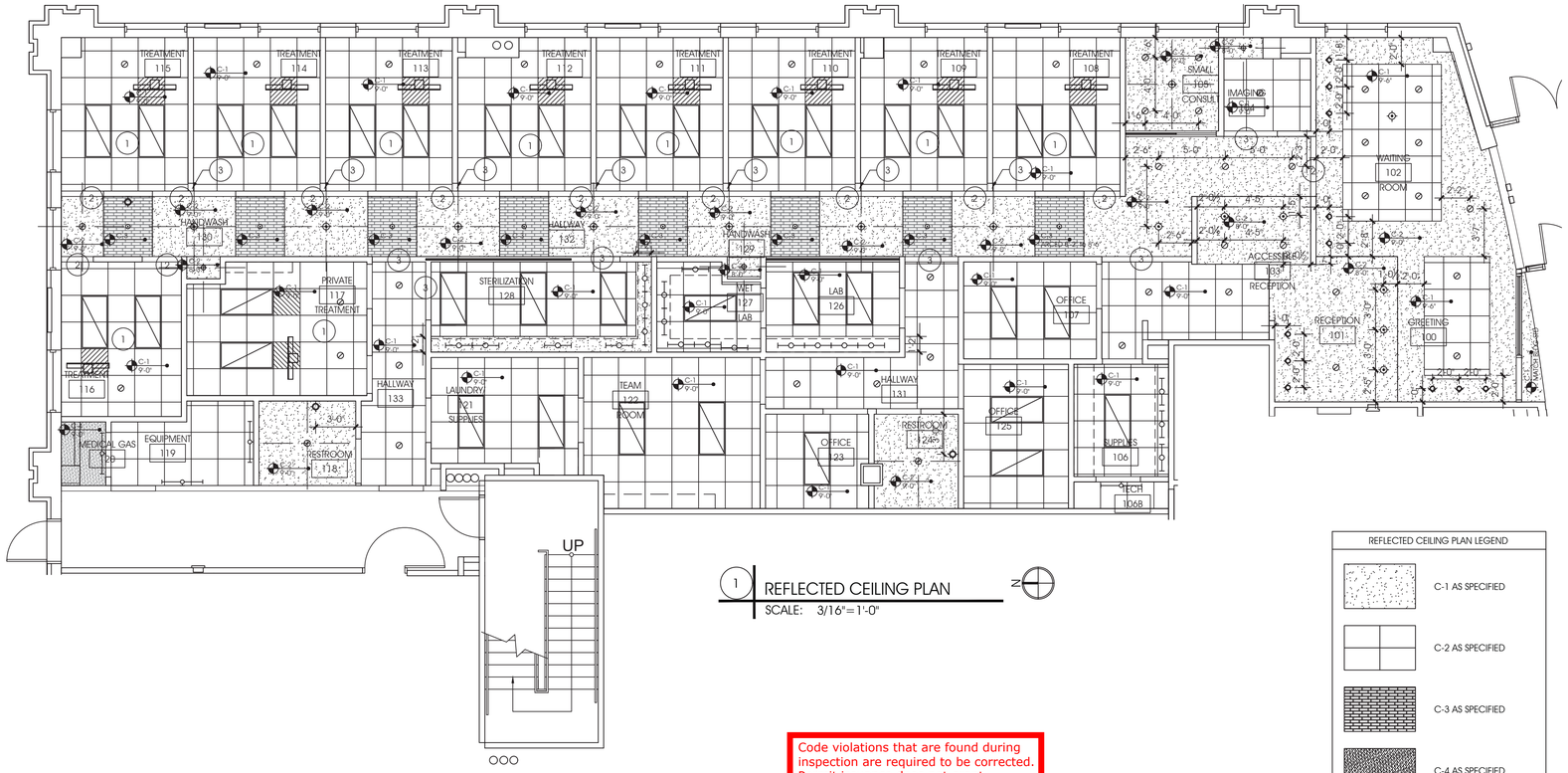
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COLORADO LICENSED HEATHER RICHARDS 40429 ARCHITECT
06.18.23

Sanders and Soult
Family Dentistry
Tenant Remodel
1444 S. Potomac Suite 100
Aurora, CO

NO.	DATE	DESCRIPTION
	06/18/23	FOR BUILD PERMIT

PROJECT NUMBER: SS101
DRAWN BY: HR
CHECKED BY: HR
SHEET TITLE: DOORS AND GLAZING
SHEET NUMBER: A201



1 REFLECTED CEILING PLAN
SCALE: 3/16"=1'-0"

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

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Matt A.
Date: Jul 03, 2023
2021 INTERNATIONAL CODES & 2020 NEC

REFLECTED CEILING PLAN LEGEND

- C-1 AS SPECIFIED
- C-2 AS SPECIFIED
- C-3 AS SPECIFIED
- C-4 AS SPECIFIED
- PROVIDE FIRE TREATED ABOVE-CEILING BACK/BRACING TO SUPPORT EQUIPMENT. COORDINATE INSTALLATION DETAILS WITH DENTAL AND IT VENDORS
- CEILING TYPE (C-X)
- CEILING HEIGHT (X'-X")

NOTE: REFER TO ELECTRICAL SHEETS THIS SET FOR LIGHTING TYPES AND SPECIFICATIONS

NOTE: REFER 3/A400 FOR TYPICAL CEILING GRID BRACING DETAIL

REFLECTED CEILING PLAN KEYED NOTES

1. PROVIDE ACOUSTICAL INSULATION 4'-0" OUT ON BOTH SIDES OF EVERY WALL ABOVE CEILING
2. DRYWALL HEADER (ARCED), SEE ELEVATIONS
3. 8'-0" DRYWALL CASED HEADER (FLAT)

REFLECTED CEILING PLAN GENERAL NOTES

1. REUSE EXISTING CEILING TILES IN AS IS CONDITION, UNLESS DAMAGED, EXCEPT THOSE AREAS IMPACTED BY NEW CONSTRUCTION.
2. IN AREAS OF NEW CONSTRUCTION ALL CEILING TILE SHALL EITHER BE ALL NEW OR ALL EXISTING/RELOCATED WITHIN A ROOM OR AREA - DO NOT MIX EXISTING/RELOCATED WITH NEW CEILING TILE.
3. ALL ACCESS PANELS TO BE IN GRID CEILING WHENEVER POSSIBLE. ANY HARD LID ACCESS PANELS TO BE DISCREET AND UNOBTRUSIVE IN THEIR LOCATION.
4. FIELD VERIFY WHETHER EXISTING CEILING IS DUCTED OR COMMON AIR PLENUM.
5. MECHANICAL SUBCONTRACTOR SHALL FIELD VERIFY EXISTING MECHANICAL SYSTEM ABOVE NEW GYPSUM BOARD CEILINGS AND SOFFITS TO ASSURE PROPER HEIGHTS AND ARRANGEMENTS OF EQUIPMENT.
6. SYSTEM TO BE PROPERLY BALANCED PRIOR TO TENANT OCCUPANCY.
7. AT ACOUSTICAL TILE CEILINGS, FIRE SPRINKLER HEADS SHALL MATCH EXISTING TENANT STANDARD STYLE AND FINISH, OR IF SPRINKLER SYSTEM IS NEW SPRINKLER HEADS SHALL BE SEMI-RECESSED CHROME WITH CHROME ESCUTCHEONS, UNLESS NOTED OTHERWISE.
8. AT ALL GYPSUM BOARD CEILINGS, FIRE SPRINKLER HEADS SHALL BE CONCEALED FLUSH STYLE IN COLOR TO MATCH CEILING COLOR. HAVE HEAD PLATES FACTORY PAINTED TO MATCH CEILING COLOR AS NECESSARY.
9. FIELD VERIFY CEILING HEIGHTS FOR CLEARANCES FOR ALL DUCT AND STRUCTURAL REQUIREMENTS. ISSUES ARE TO BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE DESIGNER.
10. REFER TO ENGINEERING DRAWINGS FOR LIGHTING LOCATIONS, SPECIFICATIONS, AND NOTES. LIGHTS SHOWN ON THIS PLAN ARE FOR PLACEMENT ONLY. GENERAL CONTRACTOR SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF THE DESIGNER.

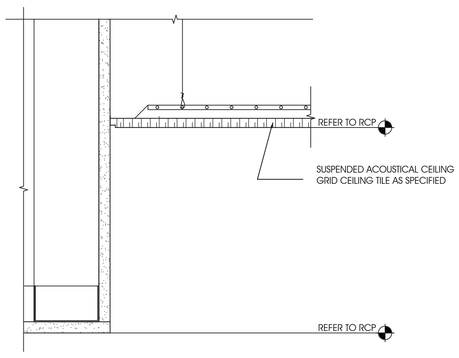
REFLECTED CEILING PLAN SPECIFICATIONS

C-1 **ITEM:** GYPSUM BOARD CEILING
LOCATION: REFER TO RCP

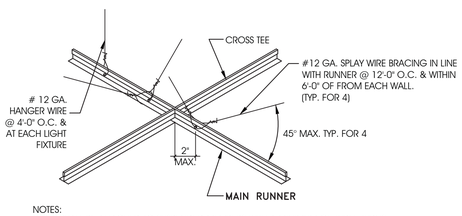
C-2 ITEM: NEW CEILING GRID/TILE
MFG: ARMSTRONG DUNE SECOND LOOK II #2172 2X4X3/4" TEGULAR SCORED TO LOOK LIKE 2X2 FOR INTERFACE WITH PRELUDE 15/16" EXPOSED TEE GRID. NRC 0.65 MIN AND CAC 35 MIN WITH BIOBLOCK ANTI-MOLD AND MILDEW.
LOCATION: REFER TO RCP

C-3 ITEM: THIN VENEER BRICK OVER APPROPRIATE SUBSTRATE FINISHED CEILING
NOTE: THIS SOFFIT ELEMENT HAS A RADIUSED FINISHED SURFACE. REFER TO DETAIL 6/A800. ENSURE PROPER PREPARATION OF SUB SURFACE AND INSTALLATION SO BRICK IS SECURE WITHOUT RISK OF FALLING.
LOCATION: REFER TO RCP

C-4 ITEM: ONE-HOUR RATED DRYWALL CEILING
NOTE: REFER TO DETAIL 5/A700
LOCATION: REFER TO RCP



2 SECTION AT NON-COVED SOFFIT
SCALE: 3"=1'-0"



NOTES:
WIRES SHALL BE ATTACHED TO SUSPENDED MEMBERS WITH A MINIMUM OF THREE TURNS.

VERTICAL STRUT SHALL BE INSTALLED AT EACH SET OF SPLAY WIRES - 200 POUND DESIGN FORCE.

FOR EVERY WIRE WHICH CAN NOT BE INSTALLED DUE TO DUCT, ETC., INSTALL MIN. OF BACK TO BACK 1-1/4' COLD ROLLED CHANNELS FOR SPANS EXCEEDING 48 INCHES.

NOTES:
ALL STRUCTURAL MEMBERS OF CEILING SYSTEM SHALL COMPLY WITH THE DIRECT HUNG LOADING AND DEFLECTION TEST REQUIRED IN ASTM C635/C636

3 TYPICAL CEILING BRACING DETAIL
SCALE: 1 1/2" = 1'-0"

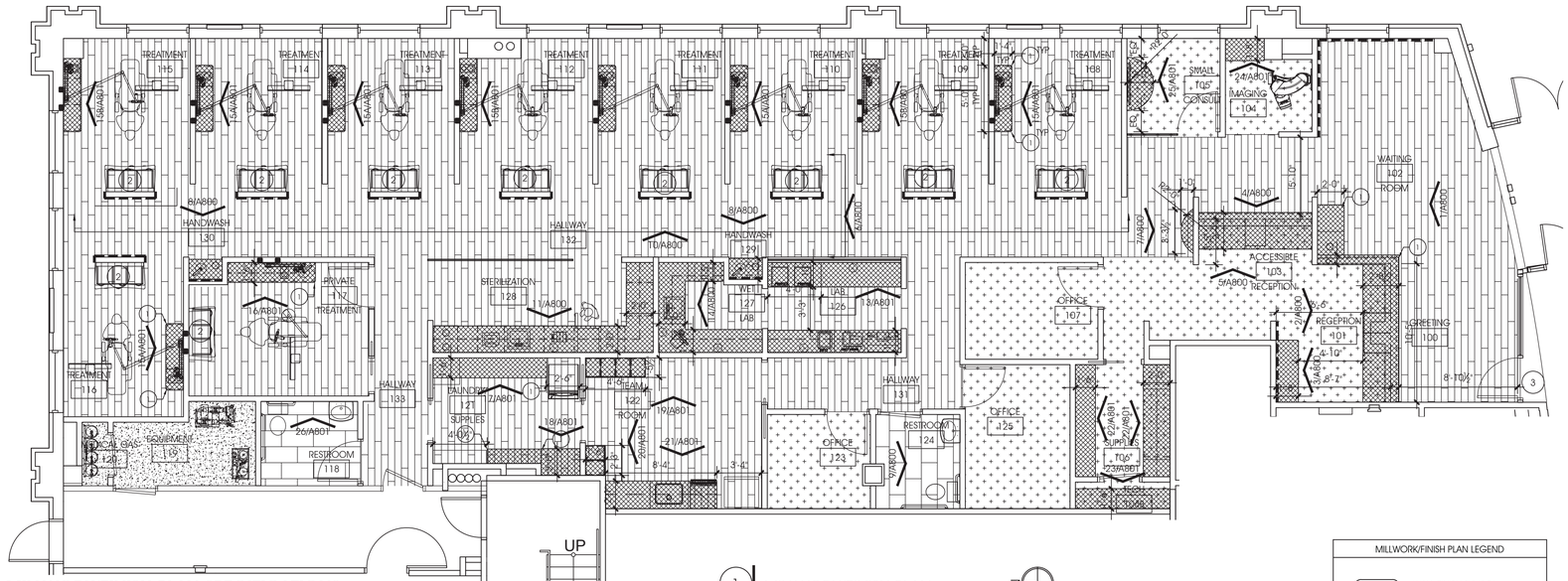
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COLORADO LICENSED
HEATHER RICHARDS
40429
ARCHITECT
06.18.23

Sanders and Soult Family Dentistry
Tenant Remodel
1444 S. Potomac Suite 100
Aurora, CO

NO.	DATE	DESCRIPTION
	06/18/23	FOR BUILD PERMIT

PROJECT NUMBER: SS101
DRAWN BY: HR
CHECKED BY: HR
SHEET TITLE: REFLECTED CEILING PLAN
SHEET NUMBER: A400



1 MILLWORK/FINISH PLAN
SCALE: 3/16"=1'-0"

MILLWORK/FINISH PLAN SPECIFICATIONS

MILLWORK/CARPENTRY

NOTE: **ALL CABINETRY TO HAVE SOFT CLOSE HARDWARE (DRAWERS AND DOORS)**

PULLS-1 CABINET PULLS: RICHELIEU URBAN EXPRESSION III COLLECTION 5" CENTERS FLATTENED BOW PULL IN BRUSHED NICKEL CABINET DOOR/DRAWER PULLS IN OIL RUBBED BRONZE FINISH
LOCATION: THROUGHOUT, UNLESS NOTED OTHERWISE

PLM-1 PLASTIC LAMINATE: WILSONART NATURAL COTTON 4946
LOCATION: REFER TO ELEVATIONS THIS SET

PLM-2 PLASTIC LAMINATE: WILSONART STUDIO TEAK 7950K-18
LOCATION: REFER TO ELEVATIONS THIS SET

PLM-3 PLASTIC LAMINATE: WILSONART NILE VELVET 15515-31 TRACELESS FINISH
LOCATION: REFER TO ELEVATIONS THIS SET

QTZ-1 QUARTZ COUNTERTOP: PENTAL QUARTZ AVENZO POLISHED IN 3CM THICKNESS, EASED EDGE
LOCATION: REFER TO ELEVATIONS THIS SE

SS-1 SOLID SURFACE: WILSONART ANGEL FALLS 9223SS 1/2" MATERIAL, STACKED EXPOSED EDGE TO BE APPROX 1½" THICK, EASED EDGE AT TOP AND BOTTOM, COVED CORNER AT BACKSPLASH WHERE APPLICABLE. PROVIDE MATTE FINISH GLOSS RANGE OF 5-20
LOCATION: REFER TO ELEVATIONS THIS SET

PERF-1 PERFORATED METAL: MCNICHOLS SLOTTED PERFORATED, 16 GUAGE PLAIN STEEL, PERFORATED METAL
LOCATION: REFER TO MILLWORK ELEVATIONS - AT ALL VENTILATED CABINETS

WOOD-1 WOOD ELEMENTS: PLAIN SLICED SELECT WHITE MAPLE STAINED TO MATCH PLM-2
LOCATION: AT ALL WOOD STAINED ELEMENTS

FLOORING

NOTE: TRANSITION STRIPS (PERMANENTLY FASTEN THROUGH ANCHOR WITH SCREWS AND WASHERS) AT CARPET/LVT TRANSITIONS - GOAL IS NO TRANSITION STRIP - THESE SHOULD BE FLOATED TO BE FLUSH HEIGHT
AT LVT/TILE TRANSITIONS PROVIDE SCHLUTER STRIP AT FLUSH HEIGHT TO PROTECT EDGE OF TILE

LVT-1 LUXURY VINYL TILE: SHAW CONTRACT INLET II 4372V 9X48 COLOR REFUGE 72155
NOTE: ENSURE PRODUCT IS INSTALLED PER MANUFACTURER'S RECOMMENDATIONS (TEST SLAB FOR MOISTURE)
NOTE: FLOORING CONTRACTOR SHALL PROVIDE ONE UNOPENED FULL BOX OF MATERIAL PLUS ANY OVERAGE FROM THE PROJECT TO THE OWNER FOR OWNER STOCK
NOTE: COORDINATE SPECIFIC INSTALLATION LAYOUT/DIRECTION WITH BLOOM STUDIO PRIOR TO INSTALLATION

CPT-1 CARPET TILE: MOHAWK GROUP DENIM CULTURE SMART CASUAL GT351 COLOR 727 STONE WASH , INSTALLED IN PATTERN TO BE COORDINATED ONSITE PRIOR TO INSTALLATION
NOTE: ORDER AN EXTRA 2 BOXES OF CARPET TILE FOR OWNER STOCK AND PROVIDE ANY LEFTOVER CARPET FROM INSTALLATION TO OWNER FOR FUTURE UTILIZATION
NOTE: ENSURE PRODUCT IS INSTALLED PER MANUFACTURER RECOMMENDATIONS

CONC-1 ITEM: EXPOSED CONCRETE, SEALED AS APPROPRIATE FOR USE OF SPACE

TILE/STONE

NOTE: BEVEL AND SMOOTH EDGES OF ALL FIELD CUT TILE AT ALL TILE TO CARPET TRANSITIONS. TILE AND CARPET SHALL BE FLUSH HEIGHT, WITH SMALL SCHLUTER TRANSITION STRIP TO PROTECT EDGE OF TILE

TILE-1 TILE: DALTILE DELEGATE OFF WHITE 12X24
TILE-1A: 3X12 BULLNOSE
GROUT: CUSTOM BUILDING PRODUCTS 386 OYSTER GRAY WOOD IN THICKNESS AS TIGHT AS RECOMMENDED BY MANUFACTURER, SEAL GROUT, INSTALL PER MANUFACTURER RECOMMENDATIONS IN BRICK PATTERN, SEE ELEVATIONS

TILE-2 TILE: DALTILE REMEDY HYDRO IN 2"X10"
GROUT CUSTOM BUILDING PRODUCTS 386 OYSTER GRAY THICKNESS AS TIGHT AS RECOMMENDED BY MANUFACTURER, SEAL GROUT, INSTALL PER MANUFACTURER RECOMMENDATIONS AND IN PATTERN COORDINATED ONSITE
TILE-1A ARIZONA TILE SHIBUSA 3X12 BULLNOSE COLOR CREMA

TILE-3 TILE: DALTILE VITRUVIAN WHITE GLOSSY 4X12
GROUT CUSTOM BUILDING PRODUCTS NATURAL GRAY THICKNESS AS TIGHT AS RECOMMENDED BY MANUFACTURER, SEAL GROUT, INSTALL PER MANUFACTURER RECOMMENDATIONS AND IN PATTERN COORDINATED ONSITE

BRK-1 THIN BRICK TILE -GENERAL SHALE OLD BRICK THIN BRICK COLOR IRONWORKS. INSTALL/PREPARE WALL ACCORDING TO MANUFACTURER SPECIFICATIONS. GROUT/MORTAR COLOR TBD ONSITE
NOTE PROVIDE CORNER PIECES AT ALL LOCATIONS BRICK TURNS CORNER
NOTE: REFER TO PROVIDED ELEVATIONS FOR DETAILS OF BRICK-1DESIRED INSTALLATION PATTERNS. COORDINATE LAYOUT ONSITE WITH ARCHITECT PRIOR TO INSTALLATION

SCH-1 SCHLUTER EDGE CAP - COLOR BLACK

RUBBER BASE

BASE-1 RUBBER BASE: JOHNSONITE MILLWORK SERIES REVEAL PROFILE (4.25" TALL) IN COLOR BLACK
LOCATION: AT ALL AREAS OF CARPET AND RESILIENT FLOORING UNLESS NOTED OTHERWISE

BASE-2 RUBBER BASE: JOHNSONITE MILLWORK SERIES REVEAL PROFILE (6" TALL) IN COLOR BLACK
LOCATION: AT ALL AREAS OF TREATMENT ROOMS AT CABINETRY WITH 6" TOEKICKS ONLY

GLAZING
FILM-1 ITEM: VINYL FILM AT GLAZING TO APPEAR 'FROSTED - 3M FASARO MILKY WHITE MILANO
LOCATION: REFER TO WINDOW TYPES SHEET A201 THIS SET

PAINT SPECIFICATIONS
GYPSUM WALLS
PRIMER PROMAR 200 ZERO VOC LATEX PRIMER
1ST AND 2ND COAT: PROMAR 200 ZERO VOC INTERIOR LATEX EG-SHELL
GYPSUM CEILINGS AND SOFFITS
PRIMER PROMAR 200 ZERO VOC LATEX PRIMER
1ST AND 2ND COAT: PROMAR 200 ZERO VOC INTERIOR LATEX FLAT
PAINTED WOOD DOORS/TRIM (IF APPLICABLE)
PRIMER (IF UNPRIMED) PREPRITE PROBLOCK LATEX PRIMER/SEALER
1ST AND 2ND COAT: PROINDUSTRIAL PRE CATALYZED WATERBASED EPOXY SEMI-GLOSS

PAINT COLORS
PT-1 OVERALL PAINT: SHERWIN WILLIAMS SW7005 PURE WHITE
LOCATION: OVERALL WALL AND DRYWALL CEILING COLOR, UNO

PT-2 ACCENT PAINT: SHERWIN WILLIAMS SW7632 MODERN GRAY
LOCATION: ACCENT AREAS TO BE DETERMINED

PT-3 ACCENT PAINT: SHERWIN WILLIAMS SW7032 WARM STONE
LOCATION: ACCENT AREAS TO BE DETERMINED

FIBER REINFORCED PANELS

FRP-1 ITEM: FIBER REINFORCED PANELS - MARLITE STANDARD FRP PANELS IN COLOR P100 WHITE, PVC TRIM MOULDING
LOCATION: TO 6'-0" HIGH AT WALLS SURROUNDING WASHER/ DRYER AND TO 4'-0" HIGH AT ALL WALLS OF EQUIPMENT ROOM

MILLWORK/FINISH PLAN LEGEND

- XXX-X — WALL FINISH SYMBOL
- XXX-X — FLOOR FINISH SYMBOL
- X/AX.X — MILLWORK ELEVATION SYMBOL
- NEW MILLWORK, REFER TO ELEV/DETAILS
- CPT-1
- LVT-1
- TILE-1
- CONC-1
- BRICK-1

NOTE: ALL WALLS TO BE PAINTED UNLESS NOTED OTHERWISE

NOTE: REFER TO SPECS FOR BASE TYPES AND LOCATIONS

MILLWORK/FINISH PLAN KEYED NOTES

1. ALL EXPOSED CORNERS SHALL BE RADIUSED TO PREVENT INJURY (TYPICAL)
2. DENTAL EQUIPMENT CABINET PROVIDED BY HENRY SCHEIN
3. PROVIDE NEW TILE FLOORING AT BUILDING COMMON LOBBY TO COORDINATE/EXTEND EXISTING BUILDING STANDARD. COORDINATE FINAL DETAILS WITH BUILDING MANAGER PRIOR TO ORDERING AND INSTALLATION

FINISH PLAN GENERAL NOTES

1. FINISH ALTERNATES AND SUBSTITUTIONS SHALL NOT BE USED UNLESS WRITTEN APPROVAL BY ARCHITECT IS OBTAINED BY GENERAL CONTRACTOR.
2. ALL OF THE MATERIALS USED IN THIS PROJECT SHALL BE LOW OR NO VOLATILE ORGANIC COMPOUND (VOC), AND LOW ODOR PRODUCTS INCLUDING BUT NOT LIMITED TO: FLOORING AND BASE ADHESIVES, CARPET, ADHESIVES, CARPET BACKINGS, LATEX CAULK, STAINS, LATEX AND OIL BASED PAINTS, WALLCOVERING ADHESIVES, PARTICLE BOARD, AND CLEANING CHEMICALS.
3. PROVIDE 1 SUBMITTAL SAMPLES OF ALL FINISHES FOR ARCHITECT APPROVAL PRIOR TO ORDERING AND INSTALLATION OF MATERIALS. SAMPLES THAT ARE NOT BOTH RECEIVED AND APPROVED BY ARCHITECT SHALL BE UNDERSTOOD TO BE "NOT APPROVED" BY ARCHITECT.
4. PROPERLY PREPARE ALL FLOORS TO RECEIVE NEW FLOORING. REMOVE EXISTING GLUE, CLEAN FLOORS, FLOAT, PATCH AND REPAIR CRACKS AS REQUIRED.
5. ALL FLOORING TRANSITIONS SHALL BE FLUSH HEIGHT. PROVIDE VINYL TRANSITION STRIPS AT ALL VCT TO CARPET TRANSITIONS.
6. PROVIDE SEAMING DIAGRAM DRAWINGS FOR ALL CARPET AREAS, PRIOR TO ORDERING OF MATERIAL AND INSTALLATION, FOR ARCHITECT COMMENTS AND APPROVAL. SEAMING DIAGRAM DRAWINGS THAT ARE NOT BOTH RECEIVED AND APPROVED BY ARCHITECT SHALL BE UNDERSTOOD TO BE "NOT APPROVED" BY ARCHITECT.
7. PROVIDE SHOP DRAWINGS ON NEW WOOD BASE, PRIOR TO ORDERING OF MATERIAL AND FABRICATION, FOR ARCHITECT COMMENTS AND APPROVAL. SHOP DRAWINGS THAT ARE NOT BOTH RECEIVED AND APPROVED BY ARCHITECT SHALL BE UNDERSTOOD TO BE "NOT APPROVED" BY THE ARCHITECT
8. ALL GYPSUM BOARD SURFACES SHALL BE TWO COATS, LATEX, PREP SURFACES PER PAINT MANUFACTURER RECOMMENDATIONS. ALL METAL, TRIM AND SURFACES PER PAINT MANUFACTURER RECOMMENDATIONS. ALL METAL, TRIM AND SASH SHALL BE TWO COATS, OIL BASE, OVER MANUFACTURER RECOMMENDED PRIMER COAT. ALL APPLICATIONS SHALL USE MANUFACTURER RECOMMENDED EXTENDER AGENTS IN ORDER TO REDUCE BRUSH MARKS.

MILLWORK PLAN GENERAL NOTES

1. ALL OF THE MATERIALS USED IN THIS PROJECT SHALL BE LOW OR NO VOLATILE ORGANIC COMPOUND (VOC), AND LOW ODOR PRODUCTS INCLUDING BUT NOT LIMITED TO: ADHESIVES, CAULKS, STAINS, LATEX AND OIL BASED PAINTS, PARTICLE BOARD, AND CLEANING CHEMICALS.
2. PROVIDE SHOP DRAWINGS ON ALL MILLWORK ITEMS, PRIOR TO ORDERING OF MATERIAL AND FABRICATION OF MILLWORK, FOR ARCHITECT COMMENTS AND APPROVAL. SHOP DRAWINGS THAT ARE NOT BOTH RECEIVED AND APPROVED BY ARCHITECT SHALL BE UNDERSTOOD TO BE "NOT APPROVED" BY ARCHITECT.
3. PROVIDE 1 SUBMITTAL SAMPLES OF ALL MILLWORK FINISHES FOR ARCHITECT APPROVAL PRIOR TO ORDERING OF MATERIAL AND FABRICATION OF MILLWORK. SAMPLES THAT ARE NOT BOTH RECEIVED AND APPROVED BY ARCHITECT SHALL BE UNDERSTOOD TO BE "NOT APPROVED" BY THE ARCHITECT.
4. FIELD VERIFY ALL MILLWORK LOCATIONS AND DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION.
5. ALL MILLWORK SHALL HAVE CONCEALED HINGES (UNLESS NOTED OTHERWISE). FLUSH MOUNT LOCKS IF NOTED ON ELEVATIONS. USE FULL EXTENSION ACCURIDE DRAWER SLIDES FOR ALL MILLWORK DRAWERS. ALL MILLWORK WITH 32MM SYSTEM SPECIFIED SHOULD BE PROVIDED WITH CONCEALED STEEL SHELF PINS. PLASTIC CLIPS, ETC. ARE NOT ACCEPTABLE.
6. ALL MILLWORK HEIGHTS SHOWN SHALL BE ABOVE FINISHED FLOOR. ALL MILLWORK HEIGHTS, WIDTHS, AND DEPTHS SHALL COMPLY WITH ADA REQUIREMENTS.
7. ALL PLASTIC LAMINATE CABINETS SHALL BE AWI CUSTOM GRADE, FLUSH OVERLAY DESIGN, CONSTRUCTED FROM MEDIUM DENSITY PARTICLE BOARD WITH THERMOFUSED MELAMINE INTERIORS. MELAMINE COLOR: WHITE ALL STAIN GRADE MILLWORK SHALL BE AWI PREMIUM GRADE.
8. ALL BASE CABINET COUNTERTOPS TO BE SCRIBED TO WALL WHEREVER BACKSPLASH DOES NOT OCCUR.
9. PROVIDE 2" BLACK PLASTIC GROMMETS AT PLASTIC LAMINATE MILLWORK AND PROVIDE 2" BLACK METAL GROMMETS AT STAIN GRADE MILLWORK WHERE NOTED.
10. SEAMS FOR STONE TOPS FOR SHALL BE IN LOCATIONS SHOWN BY ARCHITECT. IF LOCATIONS ARE UNCLEAR, CONTACT ARCHITECT BEFORE DETERMINING SEAM LOCATIONS.

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

TYP:
INSTALL FINISHES PER MANUFACTURER INSTALLATION INSTRUCTION. PROVIDE ON SITE FOR INSPECTION.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Matt A.
Date: Jul 03, 2023
2021 INTERNATIONAL CODES & 2020 NEC

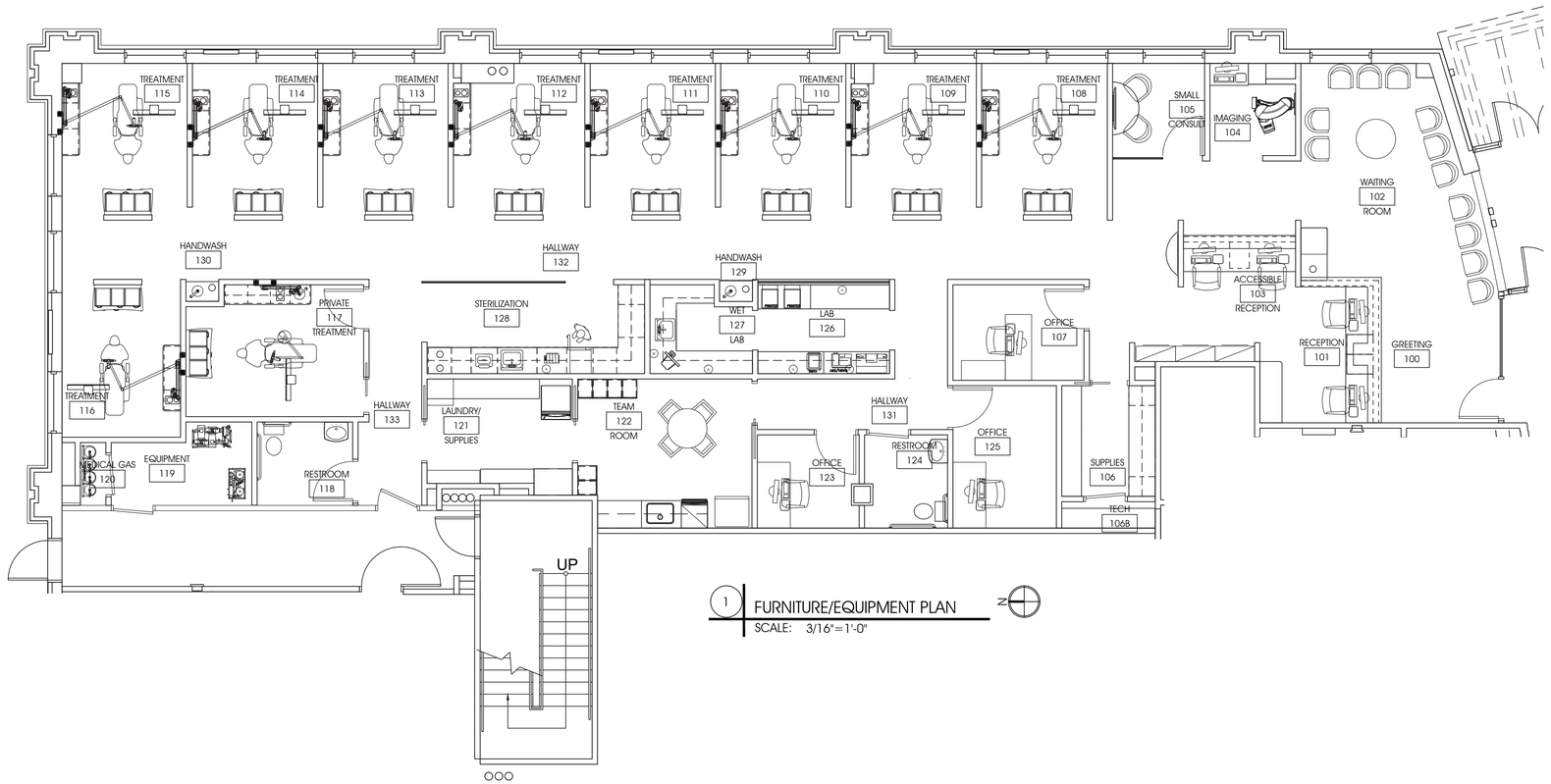
bloom studio
989 compass drive
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80516
303.505.7647

COLORADO LICENSED HEATHER RICHARDS 40429 ARCHITECT
06.18.23

Sanders and Soult
Family Dentistry
Tenant Remodel
1444 S. Potomac Suite 100
Aurora, CO

NO.	DATE	DESCRIPTION
	06/18/23	FOR BUILD PERMIT

PROJECT NUMBER: SS101
DRAWN BY: HR
CHECKED BY: HR
SHEET TITLE: MILLWORK/ FINISH PLAN
SHEET NUMBER: A500



1 FURNITURE/EQUIPMENT PLAN
SCALE: 3/16"=1'-0"

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

bloom studio
989 compass drive
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COLORADO LICENSED HEALTHCARE INTERIOR DESIGNER 404299 ARCHITECT

06.18.23

Sanders and Soult Family Dentistry

Tenant Remodel

1444 S. Potomac Suite 100
Aurora, CO

NO.	DATE	DESCRIPTION
	06/18/23	FOR BUILD PERMIT

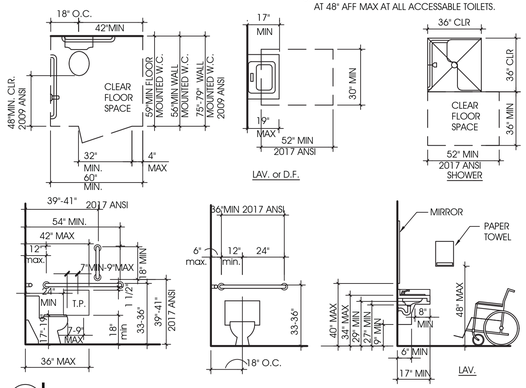
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DRAWN BY: HR | CHECKED BY: HR

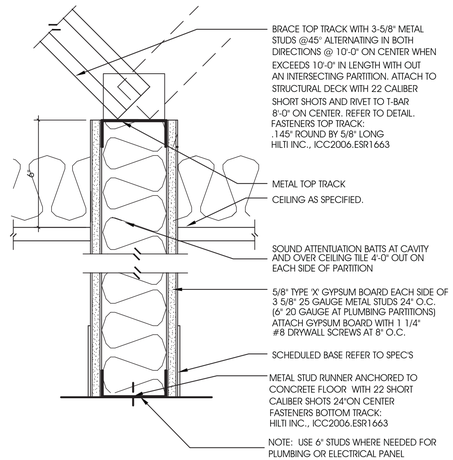
SHEET TITLE: FURNITURE LAYOUT

SHEET NUMBER: A600

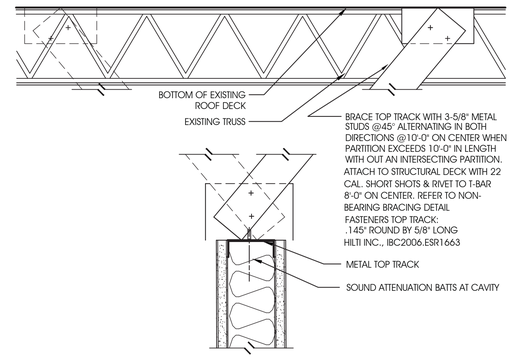
1. INSULATE ANY EXPOSED PIPING UNDER LAVATORY
2. FAUCETS SHALL BE PUSH/LEVER OF ELECTRONIC CONTROL TYPE
3. ELIMINATE SHARP EDGES OF CORNERS BELOW LAVATORY
4. GRABBARS MUST SUPPORT A LOAD OF 250 POUNDS.
5. STALL PARTITIONS SHALL PROVIDE MAX 9" TOESPACE
6. URINALS SHALL HAVE ELONGATED RIM PROJECTING FROM THE WALL A MIN. OF 14" AT A MAX. 17"A.F.F.
7. WATER CLOSET DOORS SHALL BE EQUIPED WITH AN AUTOMATIC CLOSING DEVICE
8. A PARAPHERNALIA SHELF SHALL BE PROVIDED AT 48" AFF MAX AT ALL ACCESSABLE TOILETS.



7 ACCESSIBLE CLEARANCES
SCALE: NTS

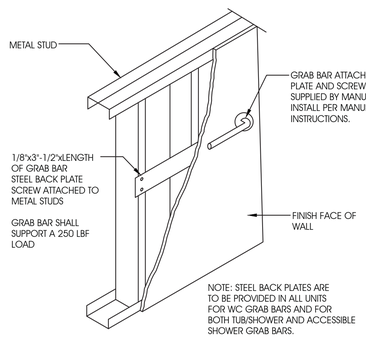


4 EXTENDED PARTITION
SCALE: 3"=1'-0"

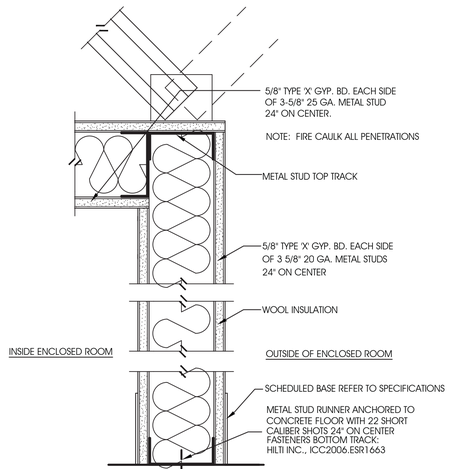


NOTE: PROVIDE (1) BRACE IN EACH DIRECTION ABOVE EACH DOOR JAMB. (TOTAL OF 4 BRACES PER DOOR OPENING)
USE WHERE PARTITION EXTENDS MORE THAN 12'-0" WITHOUT LATERAL SUPPORT OR AS NOTED

1 WALL BRACING AT NEW INTERIOR WALLS
SCALE: 3"=1'-0"



8 GRAB BAR SUPPORTS
SCALE: FULL



5 1 HOUR RATED ENCLOSED ROOM
SCALE: 3"=1'-0"

H=10'
q=5 PSF (INTERIOR)

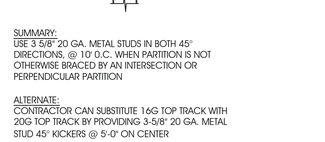
USE 3 5/8" X 25 GA. @ 24" O.C. (I.C. SECTION)

* DETERMINE MAX SPAN FOR 16G TRACK - "MT" SECTION

TRY SUPPORTS @ 8'-0" O.C.
Vmax = .607(5)(5)(8) = 120# Rmax = 228#
Mmax = .107(25)(8)^2 = 171 '# Ma = 782 '#

$\triangle max = \frac{.0065(2.08)(96)^4}{(29E6)(.725)} = .054"$

TRY SUPPORTS @ 10'-0" O.C.
Vmax = 150# Rx = 1.143(25)(10) = 286#
Mmax = 267 '# AT 45° = 400#
△max = .13"



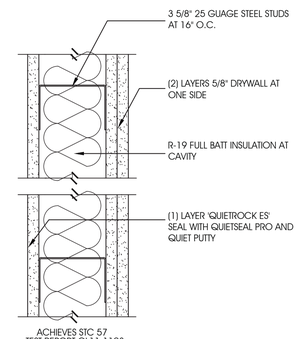
SUMMARY:
USE 3 5/8" 20 GA. METAL STUDS IN BOTH 45° DIRECTIONS, @ 10' O.C. WHEN PARTITION IS NOT OTHERWISE BRACED BY AN INTERSECTION OR PERPENDICULAR PARTITION

ALTERNATE:
CONTRACTOR CAN SUBSTITUTE 16G TOP TRACK WITH 20G TOP TRACK BY PROVIDING 3-5/8" 20 GA. METAL STUD 45° KICKERS @ 5'-0" ON CENTER

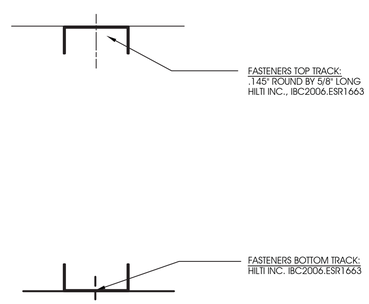
2 NON-BEARING METAL STUD BRACING
SCALE: 1"=1'-0"

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

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Matt A.
Date: Jul 03, 2023
2021 INTERNATIONAL CODES & 2020 NEC



6 ACOUSTICAL PARTITION STC 57
SCALE: 3"=1'-0"



3 TYPICAL METAL STUD FASTENING
SCALE: FULL

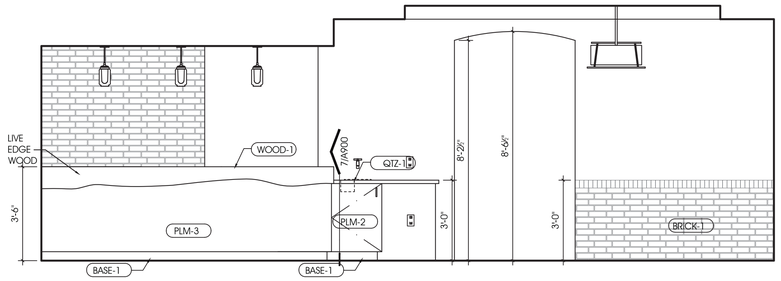
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COLORADO LICENSED HEATHER RICHARDS 40429 ARCHITECT
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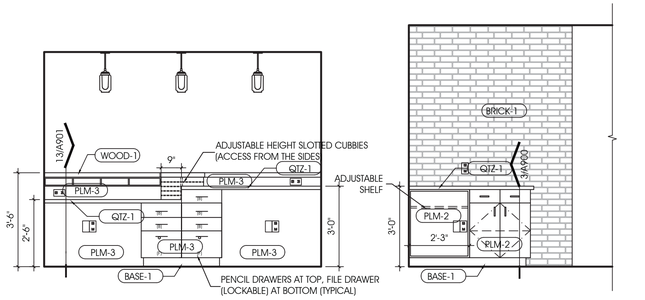
Sanders and Soult Family Dentistry
Tenant Remodel
1444 S. Potomac Suite 100
Aurora, CO

NO.	DATE	DESCRIPTION
	06/18/23	FOR BUILD PERMIT

PROJECT NUMBER: SS101
DRAWN BY: HR
CHECKED BY: HR
SHEET TITLE: CONSTRUCTION DETAILS
SHEET NUMBER: A700

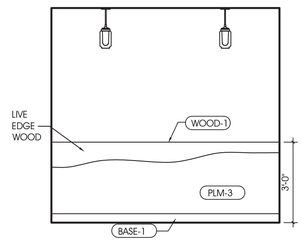


1 RECEPTION
SCALE: 3/8"=1'-0"

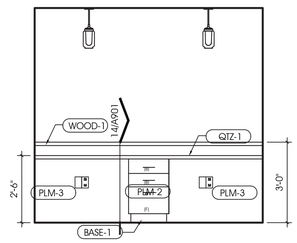


2 RECEPTION BACK
SCALE: 3/8"=1'-0"

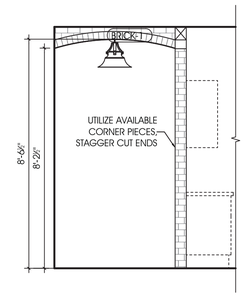
3 PRINTER
SCALE: 3/8"=1'-0"



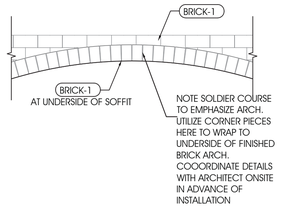
4 CHECK OUT
SCALE: 3/8"=1'-0"



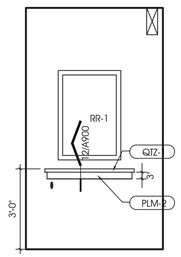
5 CHECK OUT BACK
SCALE: 3/8"=1'-0"



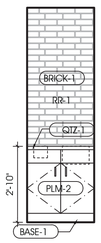
6 TREATMENT HALLWAY
SCALE: 3/8"=1'-0"



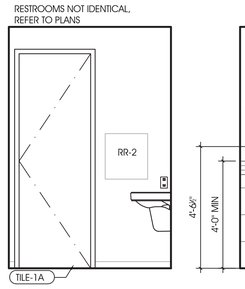
6B BRICK DETAIL AT ARCHES
SCALE: NOT TO SCALE

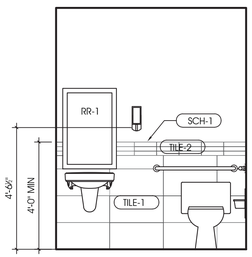


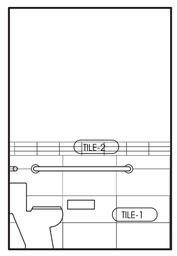
7 HALLWAY SHELF
SCALE: 3/8"=1'-0"

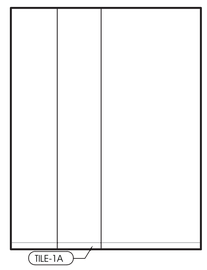


8 HANDWASH
SCALE: 3/8"=1'-0"

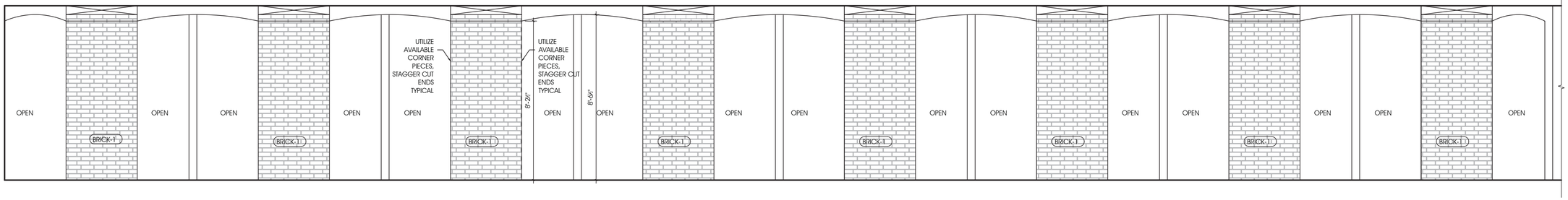




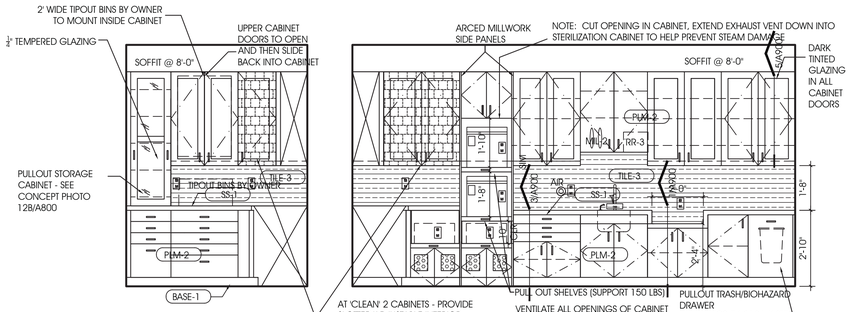




9 RESTROOM
SCALE: 3/8"=1'-0"



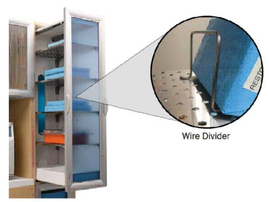
10 TREATMENT HALLWAY
SCALE: 3/8"=1'-0"



11 STERILIZATION
SCALE: 3/8"=1'-0"



12A SLOTTED ADJUSTABLE SHELVING CONCEPT
SCALE: 3/8"=1'-0"



12B PULLOUT STORAGE CABINET CONCEPT
SCALE: 3/8"=1'-0"

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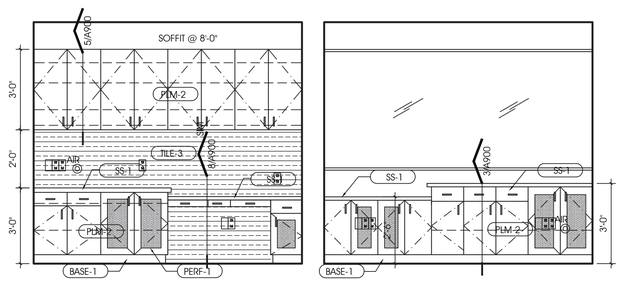
NO.	DATE	DESCRIPTION
	06/18/23	FOR BUILD PERMIT

PROJECT NUMBER: SS101

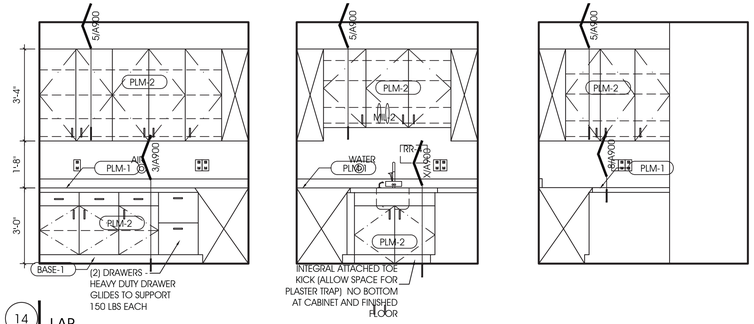
DRAWN BY: HR | CHECKED BY: HR

SHEET TITLE: INTERIOR ELEVATIONS

SHEET NUMBER: A800



13 SHOW LAB
SCALE: 3/8"=1'-0"



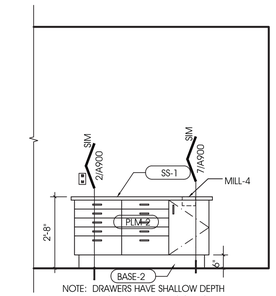
14 LAB
SCALE: 3/8"=1'-0"

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SALES AND SERVICE COUNTERS AND WINDOWS SHALL COMPLY WITH **A117.1-2017 SECTION 904.3** FOR ACCESSIBILITY REQUIREMENTS

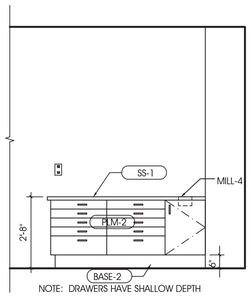
Install Plumbing Fixtures and toilet accessories Per chapter **6 ICC/ANSI A117.1-2017**

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NOTE: DRAWERS HAVE SHALLOW DEPTH BUT MUST BE FULL EXTENSION TO PROVIDE ACCESS

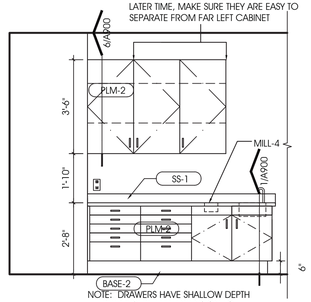
15A TREATMENT SIDE CABINET TYP
SCALE: 3/8"=1'-0"



NOTE: DRAWERS HAVE SHALLOW DEPTH BUT MUST BE FULL EXTENSION TO PROVIDE ACCESS

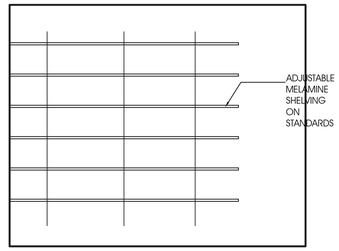
15B TREATMENT SIDE CABINET AT COLUMNS
SCALE: 3/8"=1'-0"

THESE CABINETS MAY BE REMOVED AT A LATER TIME, MAKE SURE THEY ARE EASY TO SEPARATE FROM FAR LEFT CABINET

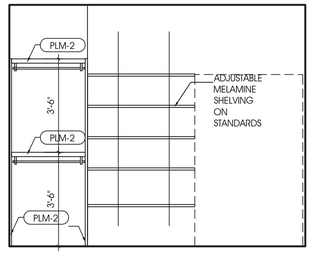


NOTE: DRAWERS HAVE SHALLOW DEPTH BUT MUST BE FULL EXTENSION TO PROVIDE ACCESS

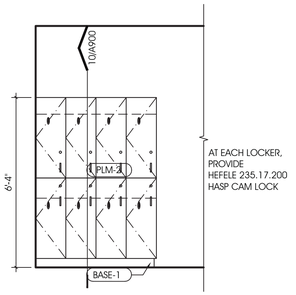
16 PRIVATE TREATMENT SIDE CABINET
SCALE: 3/8"=1'-0"



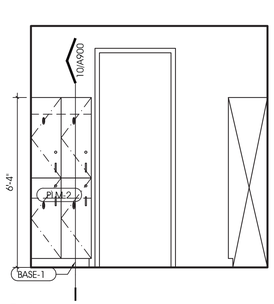
17 LAUNDRY/SUPPLIES
SCALE: 3/8"=1'-0"



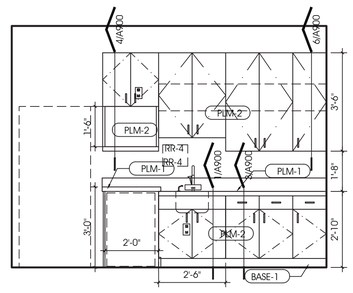
18 LAUNDRY/SUPPLIES
SCALE: 3/8"=1'-0"



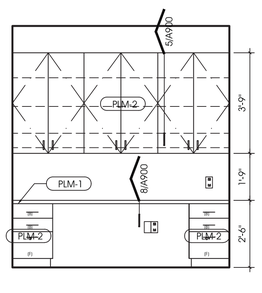
19 LOCKERS
SCALE: 3/8"=1'-0"



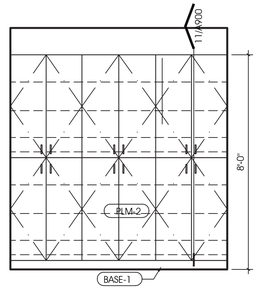
20 LOCKERS
SCALE: 3/8"=1'-0"

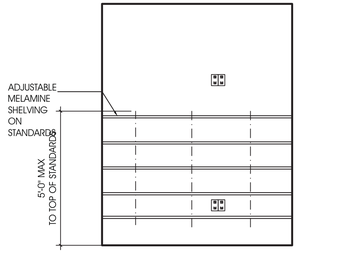


21 TEAM
SCALE: 3/8"=1'-0"

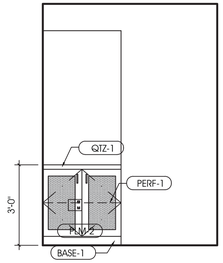


22 SUPPLIES
SCALE: 3/8"=1'-0"

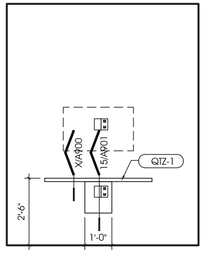




23 TECH
SCALE: 3/8"=1'-0"

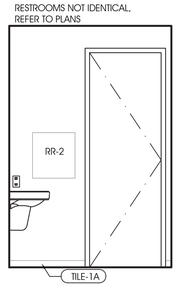


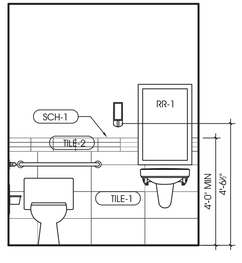
24 IMAGING
SCALE: 3/8"=1'-0"

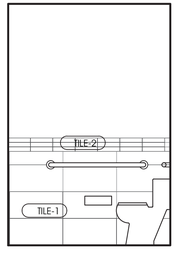


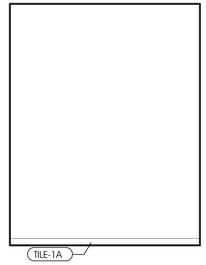
25 SMALL CONSULT
SCALE: 3/8"=1'-0"

RESTROOMS NOT IDENTICAL, REFER TO PLANS









26 RESTROOM
SCALE: 3/8"=1'-0"

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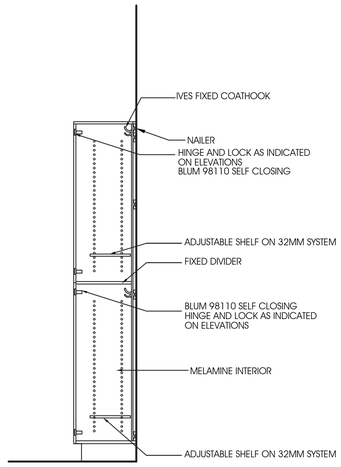
NO.	DATE	DESCRIPTION
	06/18/23	FOR BUILD PERMIT

PROJECT NUMBER: SS101
DRAWN BY: HR
CHECKED BY: HR
SHEET TITLE: INTERIOR ELEVATIONS
SHEET NUMBER: A801

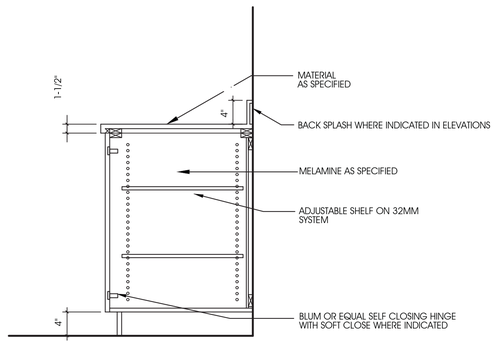
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SALES AND SERVICE COUNTERS AND WINDOWS SHALL COMPLY WITH **A117.1-2017 SECTION 904.3** FOR ACCESSIBILITY REQUIREMENTS

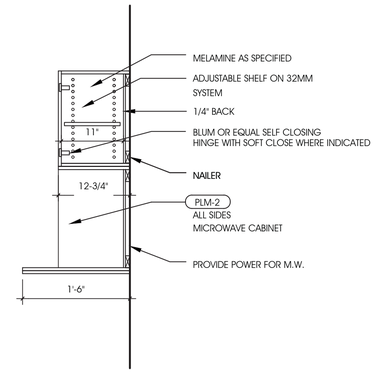
City of Aurora Building Division
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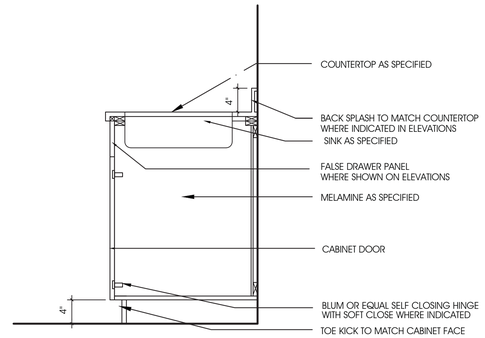
10 SECTION AT STAFF LOCKERS
SCALE: 3/4"=1'-0"



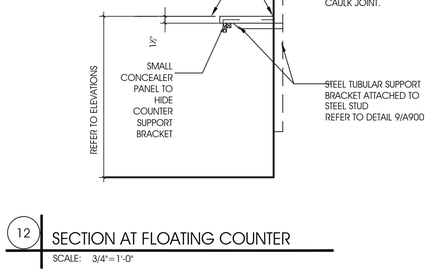
7 SECTION AT TYPICAL BASE CABINET
SCALE: 1"=1'-0"



4 SECTION AT MICROWAVE CABINET
SCALE: 1"=1'-0"



1 SECTION AT SINK
SCALE: 1"=1'-0"



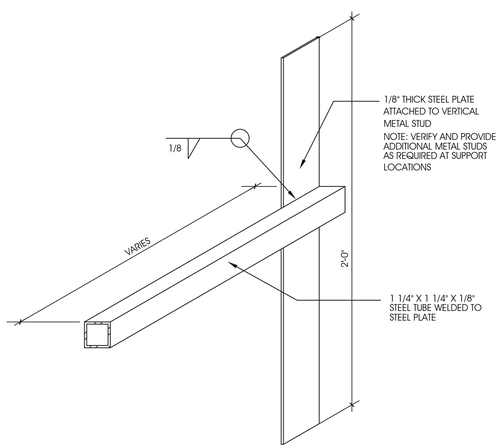
11 SECTION AT FULL HEIGHT CABINET
SCALE: 3/4"=1'-0"

8 SECTION AT COUNTER
SCALE: 3/4"=1'-0"

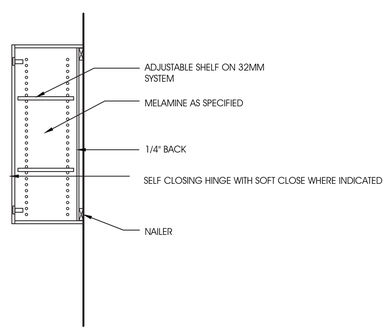
5 SECTION AT CABINETS W/ LIGHT COVE
SCALE: 1"=1'-0"

2 SECTION AT DRAWER BANK
SCALE: 1"=1'-0"

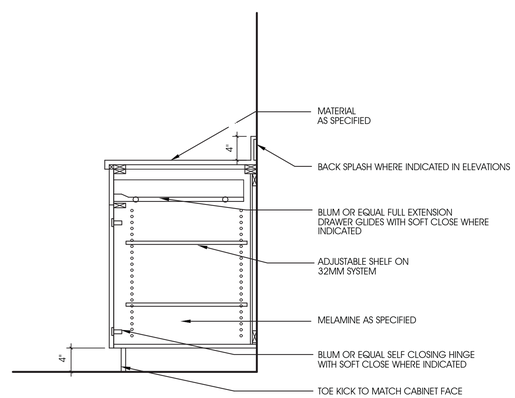
12 SECTION AT FLOATING COUNTER
SCALE: 3/4"=1'-0"



9 METAL BRACKET DETAIL
SCALE: 3"=1'-0"



6 SECTION AT TYPICAL UPPER CABINETS
SCALE: 1"=1'-0"



3 SECTION AT TYP CABINET W DRAWER
SCALE: 1"=1'-0"

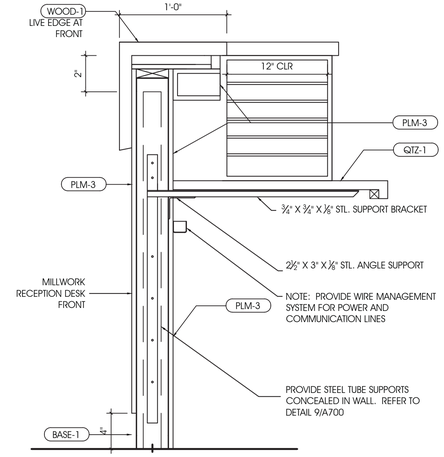
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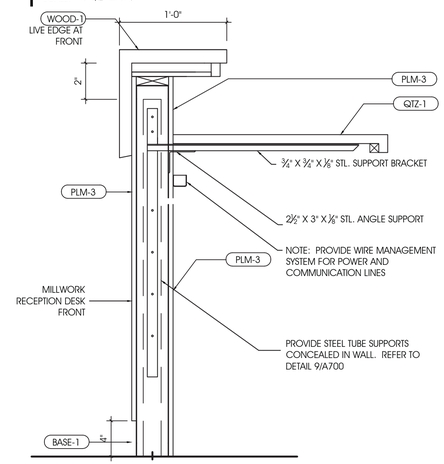
NO.	DATE	DESCRIPTION
	06/18/23	FOR BUILD PERMIT

PROJECT NUMBER: SS101
DRAWN BY: HR
CHECKED BY: HR
SHEET TITLE: MILLWORK/ DETAILS
SHEET NUMBER: A900



13 SECTION AT RECEPTION DESK

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



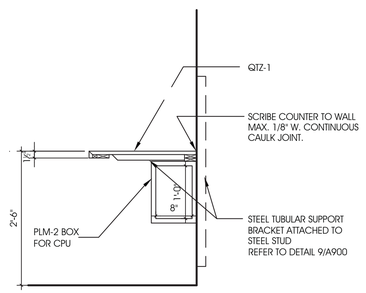
14 SECTION AT RECEPTION DESK

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

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SALES AND SERVICE COUNTERS AND WINDOWS SHALL COMPLY WITH **A117.1-2017 SECTION 904.3** FOR ACCESSIBILITY REQUIREMENTS

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15 SECTION AT CONSULT COUNTER

SCALE: 3/4"=1'-0"

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NO.	DATE	DESCRIPTION
	06/18/23	FOR BUILD PERMIT

PROJECT NUMBER: SS101

DRAWN BY: HR | CHECKED BY: HR

SHEET TITLE: MILLWORK/ DETAILS

SHEET NUMBER: A901

PLUMBING GENERAL NOTES

1. MAKE PROPER PIPING CONNECTIONS TO ALL FIXTURES AND EQUIPMENT EVEN THOUGH ALL BRANCH MAINS, ELBOWS AND CONNECTIONS ARE NOT SHOWN.
2. COORDINATE WITH ARCHITECTURAL WORKING DRAWINGS BEFORE ROUGHING-IN PLUMBING FIXTURES.
3. UNLESS OTHERWISE NOTED, PIPING SHALL BE RUN AS HIGH AS POSSIBLE, CONCEALED ABOVE CEILINGS, IN WALLS AND PARTITIONS, AND IN PIPE CHASES.
4. SLOPES AND INVERT ELEVATIONS SHALL BE ESTABLISHED BEFORE ANY PIPING IS INSTALLED IN ORDER THAT PROPER SLOPES WILL BE MAINTAINED.
5. SANITARY WASTE PIPING SHALL BE SLOPED AT ¼-INCH PER FOOT MINIMUM FOR ALL PIPING 4-INCH AND LARGER AND AND AT 1/4-INCH PER FOOT FOR ALL PIPING 3-INCH AND SMALLER
6. ALL PIPING SHALL BE LOCATED AND DETERMINED WHERE TO BE RUN TO AVOID CONFLICT WITH OTHER TRADES.
7. ALL WALL HYDRANTS SHALL BE MOUNTED 24" ABOVE FINISHED GRADE UNLESS OTHERWISE SPECIFIED.
8. ALL HOSE BIBBS SHALL BE MOUNTED 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE SPECIFIED.
9. COORDINATE WORK WITH OTHER TRADES SO AS NOT TO DISTURB NEW OR REPAIRED FINISHES.
10. ALL PLUMBING VENTS IN EXTERIOR WALLS SHALL BE OFF-SET A MINIMUM OF 3'-0" AT ROOF BEFORE ROOF PENETRATION.
11. ALL PLUMBING VENTS WITHIN A 10'-0" RADIUS OF EXHAUST VENTS SHALL BE EXTENDED TO A HEIGHT OF 2'-0" ABOVE EXHAUST VENT CROWN.
12. ALL HOT AND COLD WATER PIPING INDICATED TO BE RUN ABOVE FINISHED CEILINGS OR IN EXTERIOR WALLS SHALL BE INSTALLED ON THE CONDITIONED SPACE SIDE OF THE BUILDING INSULATION.
13. SLOPES AND INVERT ELEVATIONS OF EXTERIOR SEWERS, MANHOLES, ETC. SHALL BE ESTABLISHED AND VERIFIED BY THE CONTRACTOR BEFORE ANY PIPING IS INSTALLED IN ORDER THAT PROPER SLOPES WILL BE MAINTAINED AND NECESSARY INVERT ELEVATION OBTAINED.
14. PROVIDE DEEP SEAL P-TRAPS (4" MAX) WITH TRAP SEAL PRIMERS FOR ALL FLOOR DRAINS.
15. INDIRECT WASTE FROM FIXTURES AND SPECIALTIES, AND EQUIPMENT DRAIN LINES TERMINATING AT FLOOR DRAINS, OR APPROVED RECEPTACLES SHALL HAVE A MINIMUM 2" AIR GAP. SUPPORT PIPING SO INDIRECT WASTE CANNOT BE DEFLECTED FROM DRAIN OPENING.
16. PLUMBING CONTRACTOR TO PROVIDE AND INSTALL NAIL PLATES WHERE PIPING PASSES THROUGH STUD(S) WITHIN 2" OF HAILING SURFACE TO PROTECT PIPE FOR MAINLS OR DRYWALL SCREWS
17. PLUMBING CONTRACTOR SHALL INSTALL APPROVED WATER HAMMER ARRESTORS IN WATER LINES, BOTH HOT AND COLD, SERVING BATTERY AND BACK TO BACK FIXTURE INSTALLATIONS IN PIPE SPACE AND PIE CHASES AND SHALL BE ACCESSIBLE

DEMOLITION NOTES:

1. EXISTING HVAC PIPING, DUCTWORK AND EQUIPMENT SHOWN IS BASED ON EXISTING AND FIELD OBSERVATION WITHOUT DEMOLITION. DURING DEMOLITION, ANY CLARIFICATION REQUIRED TO DETERMINE SCOPE OF WORK SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.
2. THE CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS, PRIOR TO STARTING DEMOLITION.
3. DRAWINGS DO NOT SHOW EVERY EXISTING PIPE, CONDUIT, DUCT, ETC. CONTRACTOR SHALL TAKE CARE TO REMOVE ONLY ITEMS REQUIRED TO BE REMOVED AND VERIFY PIPES, DUCTS, ETC. BEFORE REMOVAL.

GENERAL NOTES:

1. GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH MECHANICAL DRAWING OF THIS SET. SEE EACH DRAWING FOR SPECIFIC NOTES APPLICABLE TO THAT DRAWING.
2. OUTSIDE AIR INTAKE OPENINGS FOR VENTILATION AIR SHALL BE LOCATED 10 FEET MEASURED IN ANY DIRECTION FROM ANY FLUES, VENTS, CHIMNEYS, GAS METERS, GAS REGULATORS, PLUMBING VENTS UNLESS TOP OF SUCH INTAKE OPENING IS 2 FEET BELOW ANY OF THE LISTED ITEMS.
3. OVERHEAD PIPING IN SPACES WITHOUT HUNG CEILINGS SHALL BE RUN AS CLOSE TO ROOF DECK AS PRACTICABLE, AS CLOSE TO PARALLEL JOISTS AS POSSIBLE AND ABOVE LIGHTING FIXTURES TO CONCEAL PIPING.
4. OVERHEAD DUCTWORK AND PIPING IN SPACES WITH CEILINGS SHALL BE CONCEALED UNLESS OTHERWISE NOTED.
5. COORDINATE LOCATION OF GRILLES, REGISTERS, DIFFUSERS, THERMOSTATS AND OTHER WALL OR CEILING MOUNTED HVAC ACCESSORIES WITH REFLECTED CEILING PLAN. COORDINATE LIGHTING FIXTURE LAYOUT AND ACCESSORIES INSTALLED BY OTHER TRADES SO AS TO PRESENT A NEAT AND ATTRACTIVE INSTALLATION THROUGHOUT THE ENTIRE BUILDING. IT IS THE INTENT FOR CEILING MOUNTED GRILLES, REGISTERS AND DIFFUSERS TO BE INSTALLED IN THE CENTER OF CEILING PANELS.
6. ARRANGE PIPING AND DUCTWORK, PARTICULARLY ABOVE CEILING, AS REQUIRED TO CLEAR STRUCTURE, DUCTS, CONDUIT, ETC., ALLOWING SPACE FOR PIPE HANGERS, EXPANSION LOOPS AND ACCESS TO VALVES, FILTERS AND MAINTENANCE OF EQUIPMENT.
7. THE DIAMETER OF THE SUPPLY PIPE AT ANY GAS FIRED EQUIPMENT SHALL NOT BE OF A SMALLER SIZE THAN THE INLET CONNECTION TO THE EQUIPMENT.
8. EQUIPMENT WITH FILTERS SHALL BE INSTALLED SO THAT FILTERS CAN BE EASILY REMOVED AND REPLACED.
9. CONTRACTOR SHALL VERIFY REFRIGERANT PIPE SIZES WITH EQUIPMENT MANUFACTURER FOR THE INDICATED INSTALLATION.
10. COORDINATE LOCATION AND INSTALLATION OF EQUIPMENT WITH OTHER TRADES.
11. THERMOSTATS SHALL BE LOCATED IN THE ROOMS INDICATED. INSTALL AT 4'-0" ABOVE FINISH FLOOR.
12. VALVES AND SPECIALTIES SHALL BE LINE SIZE, EXCEPT FOR CONTROL & BALANCING VALVES OR UNLESS NOTED OTHERWISE.
13. EXTEND DRAIN LINES TO NEAREST FLOOR DRAIN OR AS INDICATED. ROUTING SHALL NOT INTERFERE WITH PASSAGEWAYS AND MAINTENANCE. DRAINS FROM AIR CONDITIONING CONDENSATE DRAIN PANS SHALL BE TRAPPED. SLOPE SUSPENDED CONDENSATE DRAIN PIPING AT 1/8" PER FOOT (1 PER 100).
14. PIPING AND DUCTWORK INSULATION SHALL BE RUN CONTINUOUSLY THROUGH NON-RATED FLOORS, WALLS AND PARTITIONS, UNLESS OTHERWISE NOTED.
15. NO PIPING SHALL BE SMALLER THAN ½" UNLESS OTHERWISE NOTED.
16. RUN-OUTS SHALL PITCH DOWN IN DIRECTION OF FLOW A MINIMUM OF 1/8" PER FOOT (1PER 100).
17. FOR PIPE SIZES NOT INDICATED ON PLANS SEE EQUIPMENT CONNECTION DETAILS, FLOW DIAGRAMS, RISER DIAGRAMS AND SCHEDULES.
18. PROVIDE UNION OR FLANGED CONNECTIONS AT EACH PIECE OF EQUIPMENT AND ON BOTH SIDES OF CONTROL VALVES AND PRESSURE REGULATING VALVES. PROVIDE SHUT-OFF VALVES ON BOTH SIDES OF AUTOMATIC VALVES.
19. RELIEF VALVE DRAIN PIPING SHALL BE EXTENDED TO 6" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
20. FLOOR MOUNTED EQUIPMENT IN THE MECHANICAL ROOM SHALL BE LOCATED ON 6" THICK CONCRETE PADS WITH CHAMFERED EDGES UNLESS OTHERWISE NOTED.
21. PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE SPECIFICATION. ADDITIONAL SUPPORTS OR HANGERS SHALL BE ADJACENT TO ELBOWS, TO PREVENT WEIGHT OF PIPING BEING PLACED ON THE EQUIPMENT.
22. CORRECT SETTING ON BALANCING FITTINGS SHALL BE PERMANENTLY MARKED.
23. LOCATE AND SIZE CONCRETE PADS AND CURBS FOR MECHANICAL EQUIPMENT IN ACCORDANCE WITH ACTUAL EQUIPMENT PURCHASED.
24. FOR LOCATION OF MOTOR STARTERS, SEE ELECTRICAL DRAWINGS.

PLUMBING LEGEND

NOT ALL ITEMS LISTED BELOW ARE USED ON THIS SET OF DRAWINGS

PLUMBING PIPING

SYMBOL	ABBV.	DESCRIPTION
	CW	DOMESTIC COLD WATER
	HW	DOMESTIC HOT WATER
	HWC	DOMESTIC HOT WATER CIRCULATING
140°	HW	DOMESTIC HOT WATER AT TEMP. SHOWN
W	W	SOIL OR WASTE
BD	BD	BUILDING DRAIN
BS	BS	BUILDING SEWER
	V	SANITARY VENT
SD	SD	STORM DRAIN ABOVE FLOOR
SD	SD	STORM DRAIN BELOW FLOOR
OD	OD	OVERFLOW DRAIN ABOVE FLOOR
OD	OD	OVERFLOW DRAIN BELOW FLOOR
SS	SS	STORM SEWER
AW	AW	ACID WASTE ABV. FLOOR
AW	AW	ACID WASTE BEL. FLOOR
AV	AV	ACID VENT
GW	GW	GREASE WASTE
SOD	SOD	SEDIMENT & OIL DRAIN
G	G	NATURAL GAS
MPG	MPG	NATURAL GAS MEDIUM PRESSURE
LPG	LPG	PROPANE GAS
CA	CA	COMPRESSED AIR
T	T	TEMPERED WATER
TR	TR	TEMPERED WATER CIRCULATION
FD	FD	FOOTING DRAIN
IW	IW	INDIRECT WASTE
PD	PD	PUMP DISCHARGE LINE
FM	FM	FORCE MAIN
LI	LI	LAWN IRRIGATION

FIRE PROTECTION PIPING

SYMBOL	DESCRIPTION
F	FIRE SPRINKLER
SPK	AUTO. SPRINKLER LINE
DSP	DRY STANDPIPE
WSP	WET STANDPIPE
CSP	COMBINED STANDPIPE
FDC	FIRE DEPT. CONNECTION
D	DRAIN
	POST INDICATOR VALVE
	EXISTING SPRINKLER HEAD
	UPRIGHT SPRINKLER HEAD
	PENDANT SPRINKLER HEAD
	DRY PENDANT SPRINKLER HEAD
	REMOVE EXISTING SPRINKLER HEAD
	REMOVE & RELOCATE EXISTING SPRINKLER HEAD
	NEW LOCATION EXISTING SPRINKLER HEAD
ANGLE VALVE W/ DRAIN	PUMP TEST HEADER
SIDEWALL SPRINKLER	SECTIONAL VALVE W/ DRAIN
DOUBLE CHECK VALVE	FIRE HOSE/VALVE CABINET
FIRE DEPT. CONNECTION	FIRE HYDRANT

PIPING SYMBOLS

SYMBOL	DESCRIPTION
	WALL HYDRANT
	HOSE BIBB
	YARD HYDRANT
	BALANCING VALVE/ FLOW MEASURING DEVICE
	BALL VALVE
	OS&Y GATE VALVE
	SHUT-OFF VALVE
	GLOBE VALVE
	CHECK VALVE
	BUTTERFLY VALVE
	FLOW SWITCH
	SOLENOID VALVE
	PRESSURE REDUCING VALVE
	GAS VALVE
	MIXING VALVE
RBFP	REDUCED PRESSURE BACKFLOW PREVENTER
	ATMOSPHERIC VACUUM BREAKER
	WATER HAMMER ARRESTER
	RELIEF VALVE
	STRAINER
	STRAINER WITH BLOW-OFF VALVE
	UNION
	PRESSURE GAUGE
	THERMOMETER
P/T	PRESSURE AND TEMPERATURE TAP
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	FLEXIBLE CONNECTOR
	AREA/FLOOR DRAIN
	WALL CLEANOUT
	LINE CLEANOUT
	LINE CLEANOUT
	DOWNSPOUT NOZZLE
	EXPANSION JOINT
	PIPE ANCHOR
	ALIGNMENT GUIDE
	PLUG VALVE
	AUTOMATIC 2-WAY TEMPERATURE CONTROL VALVE
	AUTOMATIC 3-WAY TEMPERATURE CONTROL VALVE
	FLOW SWITCH
	THERMOSTATIC STEAM TRAP
	FLOAT & THERMOSTATIC STEAM TRAP
B	INVERTED BUCKET STEAM TRAP
	MANUAL AIR VENT

PIPING SYMBOLS

SYMBOL	DESCRIPTION
	GATE VALVE WITH CURB BOX
M	WATER METER
	GAS METER
	THRUST BLOCK
	MANHOLE
	CATCH BASIN
	FLOOR SINK
	ROOF DRAIN OR OVERFLOW DRAIN
	FLOOR CLEANOUT

MEDICAL GAS

SYMBOL	ABBV.	DESCRIPTION
IA	IA	INSTRUMENT AIR (DENTAL)
VAC(L)	VAC-L	VACUUM LOW PRESSURE
VAC(H)	VAC-H	VACUUM HIGH PRESSURE
O_2	O_2	OXYGEN
N	N	NITROGEN
N2O	N2O	NITROUS OXIDE
CO2	CO2	CARBON DIOXIDE
MA	MA	MEDICAL AIR
DI	DI	DISTILLED WATER
DE	DE	DEIONIZED WATER
MV	MV	MEDICAL VACUUM
CV	CV	CENTRAL VACUUM
LV	LV	LAB. VACUUM
LA	LA	LAB. COMPRESSED AIR
ALP	ALP	ALARM PANEL
ZV	ZV	ZONE VALVE

GENERAL

SYMBOL	DESCRIPTION
* / #	REFERENCE BUBBLE: * DETAIL NUMBER OR SECTION LETTER; # REFERENCE DRAWING NUMBER
# / SHT.#	RISER BUBBLE DESIGNATION
EQUIP-X	MECHANICAL / PLUMBING EQUIPMENT DESIGNATION
	POINT OF DISCONNECT /DEMO
	CONNECT NEW TO EXISTING

PIPING SYMBOLS

SYMBOL	DESCRIPTION
	ARROW IN LINE INDICATES DIRECTION OF FLOW
	INDICATES PIPE SLOPE DOWN
	REMOVE EXISTING
	BOTTOM PIPE CONNECTION
	PIPING UP
	PIPING DOWN
	FIXTURE OR DRAIN TRAP
	PIPING CAP OR PLUG
	PUMP

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	(E)	EXISTING	LCO	LINE CLEAN OUT	PRV	PRESSURE REDUCING VALVE
AFG	ABOVE FINISHED GRADE	EC	ELECTRICAL CONTRACTOR	MC	MECHANICAL CONTRACTOR	POC	POINT OF CONNECTION
ALP	ALARM PANEL	EL	ELEVATION	MH	MANHOLE	PSCO	PUBLIC SERVICE COMPANY
AP	ACCESS PANEL	FCO	FLOOR CLEAN OUT	(N)	NEW	SCO	SURFACE CLEAN OUT
BFP	BACKFLOW PREVENTER	FPC	FIRE PROT. CONTRACTOR	NC	NORMALLY CLOSED	SRV	SAFETY RELIEF VALVE
CB	CATCH BASIN	GC	GENERAL CONTRACTOR	NIC	NOT IN CONTRACT	TMV	THERMOSTATIC MIXING VALVE
℄	CENTERLINE	IE	INVERT ELEVATION	NO	NORMALLY OPEN	TYP	TYPICAL
DNZ	DOWNSPOUT NOZZLE	KEC	KIT. EQ. CONTRACTOR	NTS	NOT TO SCALE	WCO	WALL CLEAN OUT
						VTR	VENT THROUGH ROOF

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

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NO.	DATE	DESCRIPTION
	06.12.23	PERMIT/CONSTRUCTION

PROJECT NUMBER: SS101/2023032

DRAWN BY: PFM | CHECKED BY: PFM

SHEET TITLE: **PLUMBING LEGEND & GENERAL NOTES**

SHEET NUMBER: **P-001**

PLUMBING SPECIFICATIONS

BASIC REQUIREMENTS:
GENERAL PROVISIONS OF THE CONTRACT INCLUDING GENEREAL ANS SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS APPLY TO WORK OF THIS SECTION. ALL OF THE DRAWINGS AND SPECIFICATIONS ARE CONSIDERED A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING AND BEING FAMILIAR WITH ALL CONTRACT DOCUMENTS TO DETERMINE THE SCOPE OF WORK REQUIRED.

IN FINAL CONNECTIONS TO EQUIPMENT PROVIDED BY OTHER CONTRACTS OR CONTRACTORS, IT IS THE INTENT OF THE DRAWINGS TO PROVIDE AS MUCH INFORMATION AS POSSIBLE ON EQUIPMENT PROVIDED BY OTHERS. HOWEVER, THE EXTENT OF FINAL CONNECTIONS AND TYPE OF FINAL CONNECTIONS SHALL BE DETERMINED BY THE ACTUAL EQUIPMENT SUPPLIED BY OTHERS, THIS CONTRACTOR SHALL INCLUDE IN HIS BASE BID, REASONABLE COST FOR THE INSTALLATION OF EQUIPMENT PROVIDED BY OTHERS, HE SHALL NOT BE AWARDED EXTRA COSTS AFTER THE CONTRACT IS AWARDED UNLESS THE EQUIPMENT SO INSTALLED IS NOT SHOWN ON ANY OF THE CONTRACT DOCUMENTS.

WORK INCLUDED UNDER THIS DIVISION SHALL CONSIST OF FURNISHING ALL MATERIALS, SUPPLIES, EQUIPMENT, TOOLS, INSURANCE, TRANSPORTATION AND FACILITIES, AND PERFORMING ALL LABOR AND SERVICES NECESSARY FOR COMPLETE INSTALLATION OF THE NEW MECHANICAL SYSTEM(S).

ARRANGE FOR PIPE SPACES, CHASES, SLOTS, AND OPENINGS IN BUILDING STRUCTURE DURING PROGRESS OF CONSTRUCTION, TO ALLOW FOR MECHANICAL INSTALLATIONS. COORDINATE REQUIREMENTS FOR ACCESS PANELS AND DOORS FOR MECHANICAL ITEMS REQUIRING ACCESS THAT ARE CONCEALED BEHIND FINISHED SURFACES.

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING, FIRE, PLUMBING, MECHANICAL, ENERGY CONSERVATION CODES AND LOCAL JURISDICTION AMENDMENTS. PAY FOR ALL FEES AND PERMITS AS ARE NECESSARY FOR THE COMPLETE INSTALLATION OF MECHANICAL SYSTEMS.

DRAWINGS ARE DIAGRAMMATIC, INDICATING ONLY APPROXIMATE LOCATIONS OF SERVICES, DUCTWORK, APPARATUS, AND PIPING UNLESS NOTED OTHERWISE, AND ARE NOT TO BE SCALED. ACTUAL INSTALLATION MUST CONFORM TO ACTUAL BUILDING CONDITIONS AND VERIFIED IN THE FIELD. THE ARCHITECT/ ENGINEER RESERVES THE RIGHT TO EFFECT REASONABLE CHANGES IN THE LOCATION OF EQUIPMENT UP TO THE TIME OF ROUGH-IN WITHOUT ADDITIONAL COST TO THE OWNER. ANY AND ALL CHANGES SHALL BE APPROVED BY THE ARCHITECT/ ENGINEER. MAINTAIN MANUFACTURERS RECOMMENDED CLEARANCES AROUND ALL EQUIPMENT.

PROJECT SHALL BE COORDINATED WITH THE EXISTING BUIDING SERVICES AND SHALL INCLUDE ALL ITEMS NECESSARY FOR COMPLETE AND FULLY OPERATIONAL TENANT MECHANICAL SYSTEMS. MAKE CONNECTIONS TO AND EXTEND SYSTEMS INSTALLED BY OTHERS AND/OR FURNISHED BY OTHERS. PROVIDE ACCESSORIES AND INCIDENTAL ITEMS AS REQUIRED FOR A COMPLETE AND FULLY OPERATIONAL SYSTEM WHETHER OR NOT SPECIFICALLY SPECIFIED AND/OR SHOWN ON THE PLANS.

DO NOT SCALE DRAWINGS. COORDINATE WITH OTHER TRADES FOR A COORDINATED INSTALLATION WITHIN THE AVAILABLE SPACE. WHERE CROWDED CONDITIONS EXIST, PREPARE COORDINATION DRAWINGS SHOWING ALL TRADE CONFLICTS AND SUBMIT TO THE ARCHITECT FOR APPROVAL AND DIRECTION PRIOR TO ROUGH-IN OR INSTALLATION. RELOCATION OF INLETS, OUTLETS, AND/OR APPARATUS MADE PRIOR TO ROUGH-IN OR REQUIRED BY FIELD CONDITIONS FOR COORDINATION SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER OR HIS AGENTS.

ALL WORK SHALL BE PERFORMED BY PROPERLY LICENSED MECHANICS OR UNDER THEIR DIRECT SUPERVISION. ALL MATERIALS AND EQUIPMNT SHALL MEET THE REQUIREMENTS OF THE APPLICABLE STANDARDS OF UL AND SHALL BEAR THE UL LABEL AS EVIDENCE THAT THE MATERIAL AND/OR EQUIPMINT MEETS THIS REQUIREMENT.

INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND DETAILS UNLESS OTHERWISE NOTED IN THESE PLANS.

ALL EQUIPMENT START UP AND TESTING SHALL BE PERFORMED BY THE EQUIPMENT MANUFACTURER TRAINED SERVICE TECHNICIAN.

SUBMIT MANUFACTURER'S LITERATURE (SHOP DRAWINGS) FOR MATERIALS AND EQUIPMENT. SUBMITTAL SHALL INCLUDE EQUIPMENT PERFORMANCE DATA AT ELEVATION AND/OR LOCAL CONDITIONS. EQUIPMENT CUTSHEETS OR CATALOG COPIES ARE NOT ACCEPTABLE.

SUBMITTAL SHALL BEAR THE APPROVAL OF THE GENERAL CONTRACTOR FOR COMPLIANCE WITH COORDINATION AND THESE SPECIFICATIONS PRIOR TO SUBMITTAL TO ARCHITECT AND/OR HIS AGENCIES.

ANY EQUIPMENT SUBSTITUTED FOR WHAT IS SCHEDULED SHALL BE EQUAL TO THAT SCHEDULED IN CONTROLS, ACCESSORIES, AND PERFORMANCE REGARDLESS OF MANUFACTURER.

SEPARATE PDF FILE PACKAGES SHALL BE SUPPLIED FOR EACH SECTION AND EACH SUBMITTAL TYPE, EACH PDF SHALL REPRESENT A SINGLE STANDALONE SUBMITTAL.

SUBMITTAL AND SHOP DRAWINGS SHALL INDENTIFY EACH SUBMITTED ITEM WITH NUMBERS OR LETTERS IDENTICAL TO THOSE LISTED OR SCHEDULED ON THE DRAWINGS OR SPECIFICATIONS. SUBMITTALS NOT INCLUDING SUCH MARKINGS WILL BE RETURNED NOT REVIEWED.

SUBMITTING SUBCONTRACTOR SHALL ALLOW FIFTEEN (15) DAYS, FOR REVIEW AND COMMENT.

FIELD LABEL ALL MECHANICAL EQUIPMENT AND PIPING AS INDICATED ON THE PLANS PER MECHANICAL AND LOCAL CODE REQUIREMENTS. INDICATE DIRECTION OF FLOW ON PIPING.

PROVIDE 2" DEEP AUXILIARY DRAIN PAN WITH SEPARATE DRAIN LINE UNDER HEATING AND COOLING COILS (AIR HANDLING UNITS, FAN COIL UNITS, INLINE PUMPS, ETC.) WHERE CONDENSATION OR LEAKAGE CAN OCCUR.

BASIC MATERIALS:

PROVIDE MECHANICAL SYSTEM CONTROLS, CONTROLLERS, CONTROL TRANSFORMER, DISCONNECTS, STARTERS, CONTROL WIRING, ASSOCIATED CONTROL POWER WIRING, AND ALL WORK NECESSARY FOR A COMPLETE AND OPERATIONAL MECHANICAL SYSTEM.

PROVIDE SUPPLEMENTAL STEEL AND SUPPORTS AS REQUIRED FOR INSTALLATION OF MECHANICAL MATERIALS, EQUIPMENT, AND APPARATUS.

PROVIDE VIBRATION ISOLATION ON ALL MECHANICAL EQUIPMENT. INSTALL FLEXIBLE DUCT CONNECTORS ON ALL AIR HANDLING UNIT SUPPLY OUTLET AND RETURN INLET.

ALL WORK IN FINISHED AREAS SHALL BE CONCEALED UNLESS SPECIFICALLY NOTED AS EXPOSED ON THE PLANS. PRIOR TO THE INSTALLATION OF ANY EXPOSED WORK THIS CONTRACTOR SHALL VERIFY AND OBTAIN ARCHITECTURAL APPROVAL OF LOCATION AND EXTENT.

CONFIRM ACTUAL VOLTAGES, PHASE AND CHARACTERISTICS OF EXISTING EQUIPMENT AND APPARATUS FURNISHED BY TENANT, OTHER TRADES, AND/OR DIVISIONS. CONFIRM PRIOR TO ROUGH-IN. IF DISCREPANCIES ARE NOTED TO THE INSTRUCTIONS OF THESE PLANS AND SPECIFICATIONS, SUBMIT THE NOTED DISCREPANCIES TO THE ARCHITECT FOR DIRECTION PRIOR TO PROCEEDING.

PROVIDE PRESSURE REDUCING VALVE ASSEMBLY AT BUILDING WATER SERVICE ENTRY WHERE PRESSURE EXCEEDS 65 PSI. PRESSURE REDUCING VALVE TO BE SET TO 65 PSI UNLESS NOTED OTHERWISE ON THE DRAWINGS.

PROVIDE SANITARY SEWER SYSTEM CLEANOUTS AT ALL HORIZONTAL CHANGED IN DIRECTION GREATER THAN 45 DEGREES, AT THE BASE OF ALL VERTICAL STACKS AND AS REQUIRED BY LOCAL CODES.

PROVIDE BRANCH SHUT-OFF VALVES ON ALL WATER LINES EXTENDING FROM MAINS.

THE CONTRACTOR SHALL LOCATE AND FURNISH FOR INSTALLATION BY OTHERS, ALL ACCESS PANELS (MINIMUM 12"x12") AS REQUIRED FOR ACCESS TO VALVES, DAMPERS, MOTORS, ETC. AND THE PROPER SERVICING OF EQUIPMENT AND LINES INSTALLED UNDER THIS CONTRACT.

ALL MATERIAL LOCATED IN CEILING PLENUMS SHALL BE SUITABLE FOR RETURN AIR PLENUM.

PIPING

SANITARY AND STORM PIPING ABOVE GRADE SHALL BE CAST IRON HUBLESS WITH STAINLESS STEEL BANDS OR SCHEDULE 40 PVC WITH SOLVENT JOINTS.

SANITARY AND STORM PIPING BELOW GRADE SHALL BE CAST IRON HUBLESS WITH STAINLESS STEEL BANDS OR SCHEDULE 40 PVC WITH SOLVENT JOINTS.

DOMESTIC WATER PIPING ABOVE GRADE SHALL BE TYPE L COPPER WITH SOLDERED JOINTS OR PEX WITH MANUFACTURE APPROVED JOINING METHOD.

DOMESTIC WATER PIPING BELOW GRADE SHALL BE TYPE K COPPER WITH SILVER SOLDERED JOINTS.

PIPING LOCATED BELOW GRADE/SLAB SHALL BE PROTECTED WITH PLASTIC SHEATHING WITH MINIMUM 8.0 MIL. THICKNESS. PIPING THROUGH SLAB SHALL HAVE AN ANNULAR SPACE OF 0.25" AND SPACE SHALL BE SEALED WITH CAULKING MATERIAL OR GASKETING SYSTEM COMPATIBLE WITH THE PIPING MATERIAL

CONDENSATE DRAIN PIPING SHALL BE TYPE M COPPER WITH SOLDERED JOINTS OR SCHEDULE 40 PVC WITH SOLVENT JOINTS.

COMPRESSED AIR PIPING SHALL BE TYPE L COPPER WITH SOLDERED JOINTS OR SCHEDULE 40 BLACK STEEL WITH MALLEABLE THREADED FITTINGS

GAS PIPING 4" INCHES AND LARGER SHALL BE SCHEDULE 40 STEEL WITH WELDED JOINTS.

GAS PIPING 3-1/2" INCHES AND SMALLER SHALL BE SCHEDULE 40 STEEL WITH MALLEABLE THREADED FITTINGS.

DENTAL GAS PIPING (OXYGEN, NITROUS OXIDE, NITROGEN) SHALL BE TYPE L OR K COPPER MEDICAL GAS TUBE IDENTIFIED WITH MANUFACTURE MAKINGS FOR "OXY", "MED", "OXY/MED", "OXY/ACR" OR "ACR/MED" IN BLUE (TYPE L), OR GREEN (TYPE K) WITH BRAZED JOINTS

DENTAL VACUUM PIPING BELOW GRADE SHALL BE TYPE L COPPER WITH SOLDERED JOINTS, SCHEDULE 40 PVC WITH SOLVENT JOINTS OR AS SPECIFIED BY DENTAL EQUIPMENT SUPPLIER

DENTAL VACUUM PIPING ABOVE GRADE SHALL BE TYPE L COPPER WITH SOLDERED JOINTS OR AS SPECIFIED BY DENTAL EQUIPMENT SUPPLIER

GAS PIPING BELOW GRADE SHALL BE WRAPPED WITH PROTECTIVE PIPE COVERING, WHERE LOCATED UNDER BUILDING SLABS GAS PIPE SHALL BE RUN INSIDE A VENTED CARRIER PIPE AND VENTED IN ACCORDANCE WITH LOCAL JURISDICTIONS HAVING AUTHORITY.

FIRE STOP ALL PIPING MATERIALS PASSING THROUGH FIRE RATED STRUCTURES OR FIRE RATED ASSEMBLIES IN ACCORDANCE WITH THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. USE CURRENTLY LISTED U.L. CLASSIFIED PRODUCTS, TESTED BY ASTM E814. USE FOR ALL APPLICABLE PIPE PENETRATIONS THROUGH FIRE RATED FLOORS, WALLS, OR FLOOR CEILING ASSEMBLIES IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS.

INSULATION

ALL COLD AND HOT WATER PIPING INSULATION SHALL HAVE A MINIMUM CONDUCTANCE VALUE BETWEEN 0.21 AND 0.28

COLD WATER PIPING SHALL BE INSULATED WITH 1/2 INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET.

COLD WATER PIPING EXPOSED TO WEATHER SHALL BE INSULATED WITH 1.5" FIBERGLASS INSULATION.
HOT WATER PIPING 2" OR LESS SHALL BE INSULATED WITH 1-INCH FIBERGLASS INSULATION.

HOT WATER PIPING GREATER THAN 2-INCHES SHALL BE INSULATED WITH 1.5" FIBERGLASS INSULATION.

RUNOUTS, NOT EXCEEDING 12 FEET, UP TO 2-INCHES SHALL BE INSULATED WITH ½-INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET.

STORM DRAIN PIPING ABOVE GRADE SHALL BE INSULATED WITH ½-INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET.

CONDENSATE DRAIN PIPING SHALL BE INSULATED WITH ½-INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET.

WATER PIPING IN UNCONDITIONED SPACE AND EXTERIOR WALLS SHALL BE INSULATED WITH 2" FIBERGLASS INSULATION.

PLUMBING FIXTURES

FURNISH AND INSTALL PLUMBING FIXTURES AS SCHEDULED ON THE PLANS.

APPROVED MANUFACTURES ARE; AMERICAN STANDARD, ELJER, KOHLER, CRANE, TOTO, ZURN, ACORN, BRADLEY, CHICAGO FAUCET, ELKAY, DELTA, MOEN, ZURN.

PROVIDE CHROME PLATED ANGLE STOPS AND ESCUTCHEON PLATES ON ALL EXPOSED FIXTURE RUNOUTS.

PROVIDE INSULATION AND ROUGH-IN AS REQUIRED FOR COMPLIANCE WITH ADA REQUIREMENTS.

PROVIDE ALL ACCESSORIES AND SPECIALTY ITEMS AS REQUIRED FOR A COMPLETE FIXTURE INSTALLATION.

REDUCED PRESSURE BACKFLOW PREVENTERS

FURNISH AND INSTALL REDUCED PRESSURE BACKFLOW PREVENTER FOR THE PRIMARY DOMESTIC COLD WATER SERVICE IN ACCORDANCE WITH STATE, LOCAL, AND JURISDICTIONAL WATER DISTRICT REQUIREMENTS.

FURNISH AND INSTALL REDUCED PRESSURE BACKFLOW PREVENTERS FOR MECHANICAL EQUIPMENT REQUIRED OF THIS OR OTHER SECTIONS OF THESE SPECIFICATIONS.

PROVIDE HEAT TRACING AND ASSOCIATED INSULATION FOR ALL WATER AND SANITARY WASTE PIPING SUBJECT TO FREEZING. PROVIDE POWER CONNECTIONS, SPLICE FITTINGS, AND END CAPS FOR A COMPLETE/OPERATIONAL SYSTEM

ELECTRIC WATER HEATERS

FURNISH AND INSTALL A GLASS LINED ELECTRIC WATER HEATER AS SCHEDULED ON THE PLANS. ACCEPTABLE MANUFACTURERS ARE A.O. SMITH, BRADFORD WHITE, RHEEM, OR STATE.

FURNISH HEATER WHICH ARE CSA INTERNATIONAL CERTIFIED AND MEET THE REQUIREMENTS OF LOCAL MUNICIPALITIES.

WATER HEATER LOCATED IN CEILING SHALL BE PROVIDED WITH 2.5" DEEP DRAIN PAN. TERMINATE DRAIN TO NEAREST FLOOR DRAIN, FLOOR SINK OR LAVATORY TRAP.

GAS WATER HEATERS

FURNISH AND INSTALL A GLASS LINED HIGH EFFICIENCY WATER HEATER AS SCHEDULED ON THE PLANS. ACCEPTABLE MANUFACTURERS ARE A.O. SMITH, BRADFORD WHITE, RHEEM, OR STATE.

FURNISH HEATER WHICH ARE UL LABELED AND MEET THE REQUIREMENTS OF LOCAL MUNICIPALITIES.

COMPLETION:
CLEAN INSULATION COVERING, DUCTS, PIPES, EQUIPMENT AND ACCESSORIES TO RECEIVE PRIME COAT OF PAINT. CLEAN EQUIPMENT RECIVED WITH PRIME COAT TO RECEIVE FINAL COAT.
REPLACE AIR FILTERS IF UNITS WERE OPERATED DURING CONSTRUCTION. CLEAN DUCTS. BLOWERS, AND COILS IF UNITS WERE OPERAED WITHOUT FILTERS DURING CONSTRUCTION.

CONTRACTOR SHALL PROVIDE A GUARANTEE IN WRITTEN FORM STATING THAT ALL WORK UNDER THIS SECTION SHALL BE FREE OF DEFECTIVE WORK, MATERIALS, OR PARTS FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNER'S FINAL ACCEPTANCE AND SHALL REPAIR, REVISE OR REPLACE AT NO COST TO THE OWNER ANY SUCH DEFECTS OCCURRING WITHIN THE GUARANTEE PERIOD.

INSTRUT OWNER IN OPERATION AND MAINTENANCE OF MECHANICAL SYSTEMS. MINIMUM PARTICIPANTS SHALL INCLUDE MECHANICAL CONTRACTOR AND CONTROLS CONTRACTOR REPRESENTATIVES.

AFTER TESTS AND ADJUSTMENTS HAVE BEEN MADE AND SYSTEM IS PRONOUNCED SATISFACTORY FOR PERMANENT OPERATION, REFINISH DAMAGED FINISH AND LEAVE EVERYTHING IN PROPER WORKING ORDER AND APPEARANCE.

ON COMPLETION OF WORK, REMOVE TOOLS, SCAFFOLDING, DEBRIS, ETC. FROM GROUNDS AND LEAVE PREMISES CLEAN.

OPERATION AND MAINTENANCE MANUALS:
PRIOR TO COMPLTION OF PROJECT, SUBMIT THREE (3) SETS OF MAINTENANCE MANUALS COVERING OPERATION AND MAINTENANCE OF MECHANICAL EQUIPMENT WITH MOVING OR MOVABLE PARTS, INCLUDING PLUMBING SYSTEMS INSTRUCTIONS SHALL BE IN PAMPHLET OR TYPEWRITTEN FORM IN THREE RING BINDERS. INSTRUCTIONS FOR EACH UNIT SHALL BE INDICATED BY SEPARATE TAB.

INCLUDE CERTIFIED TEST AND BALANCE REPORT.

INCLUDE STARTING, STOPPING, LUBRICATION, PREVENTATIVE MAINTENANCE SCHEDULE. AND ADJUSTMENT INFORMATION FOR EACH PIECE OF EQUIPMENT. INCLUDE GUARANTEES AND WARRANTIES OF ALL EQUIPMENT.

INCLUDE AS-BUILT DRAWINGS OF COMPLETED HVAC AND PLUMBING SYSTEMS

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

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6.12.23.
PROFESSIONAL ENGINEER

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PETER F. McDONALD, PE

Sanders and Soult Family Dentistry
Tenant Remodel
1444 S. Potomac, Suite 100
Aurora, CO

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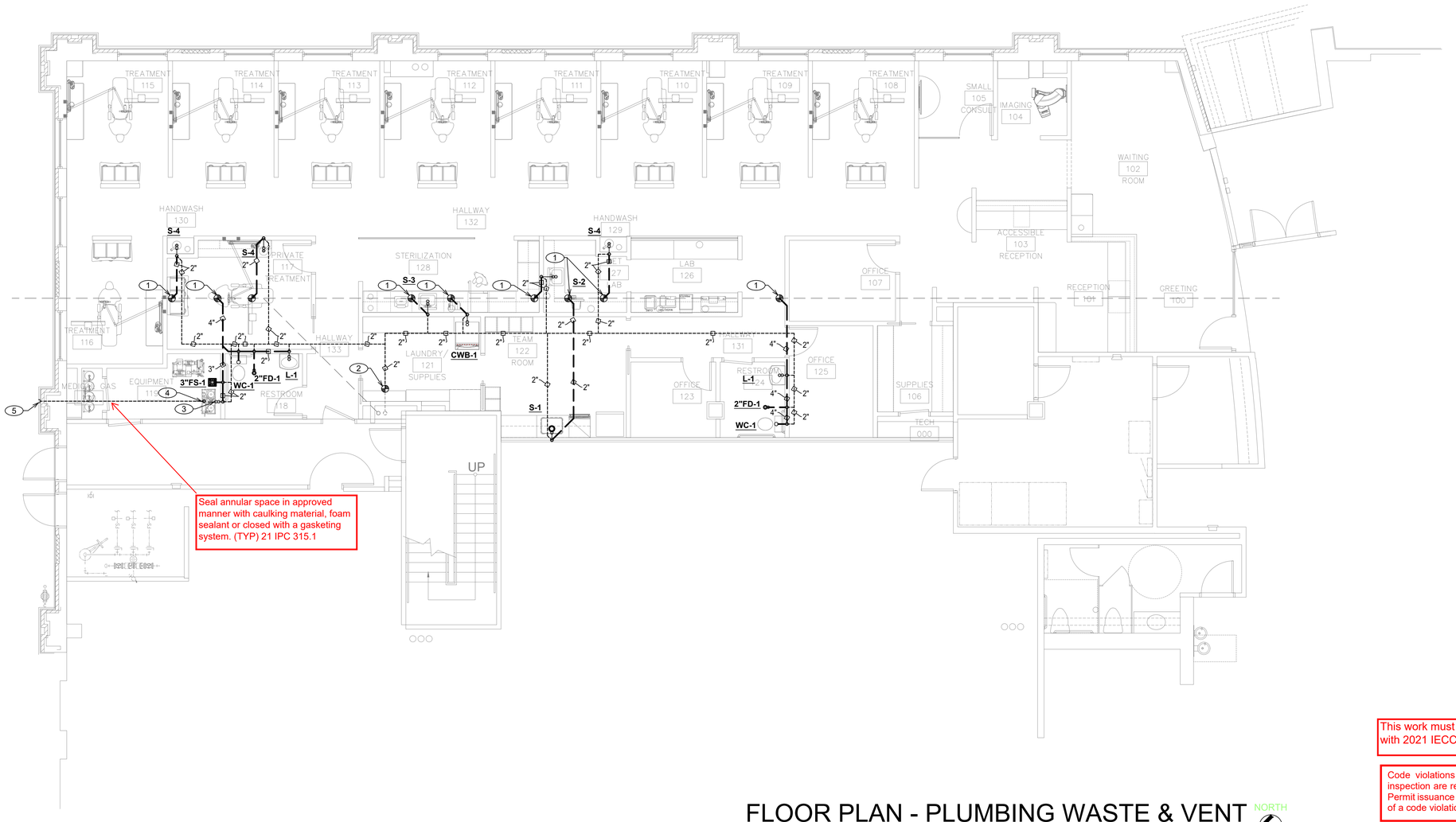
SHEET TITLE: **PLUMBING SPECIFICATIONS**

SHEET NUMBER: **P-002**

SHEET NOTES (X)

1. CONNECT NEW WASTE TO EXISTING 4" OR LARGER BUILDING DRAIN LINE BELOW SLAB, VERIFY EXACT LOCATION, SIZE, DEPTH AND FLOW DIRECTION IN FIELD PRIOR TO START OF WORK
2. CONNECT NEW 2" VENT TO EXISTING 2" OR LARGER VENT STUB AT CEILING, VERIFY EXACT LOCATION, SIZE AND ELEVATION IN FIELD PRIOR TO START OF WORK
3. 2" DIRECT WASTE CONNECTION TO DENTAL VACUUM PUMP, VERIFY CONNECTION REQUIREMENTS WITH DENTAL EQUIPMENT VENDOR PRIOR TO START OF WORK
4. 2" VENT CONNECTION TO DENTAL VACUUM PUMP DOWN TO 72" AFF, VERIFY EXACT LOCATION AND CONNECTION REQUIREMENTS WITH DENTAL EQUIPMENT VENDOR PRIOR TO START OF WORK
5. 2" SIDEWALL VENT DISCHARGE CAP, PAINT TO MATCH SURROUNDING SURFACE

THE CITY OF AURORA BUILDING DIVISION DOES NOT PERMIT, REVIEW OR INSPECT BACKFLOW PREVENTION DEVICES ON BUILDING DOMESTIC WATER ENTRY. PLEASE CONTACT AURORA WATER - WATER SERVICE CROSS CONNECTION CONTROL 303-326-8510



FLOOR PLAN - PLUMBING WASTE & VENT

NORTH

SCALE: 3/16" = 1'-0"

This work must also comply with 2021 IECC

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation. **2021 IBC 105.4**

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Y. Munoz*
Date: *Jun 29, 2023*
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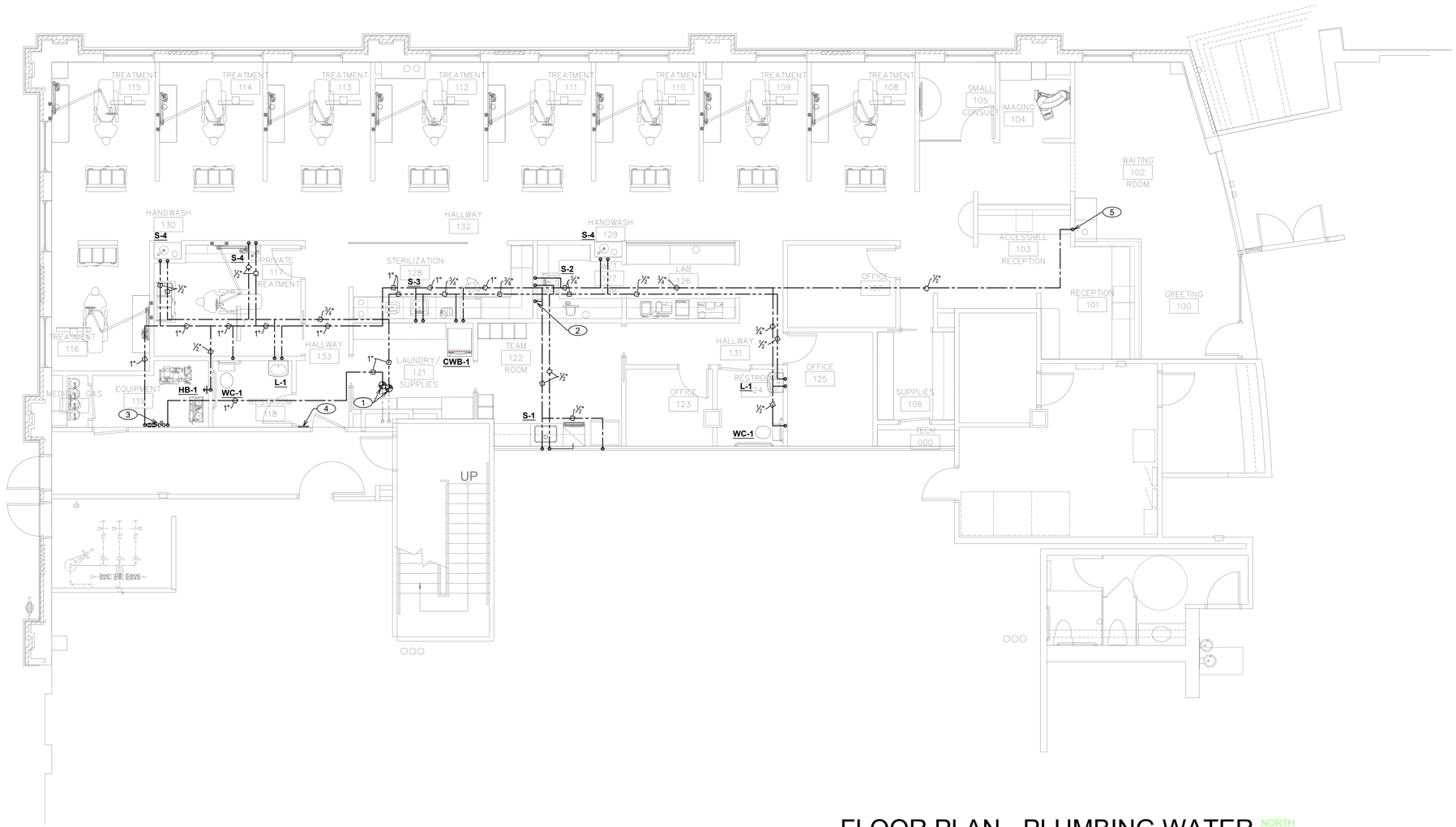
DRAWN BY: PFM | CHECKED BY: PFM

SHEET TITLE: **FLOOR PLAN - PLUMBING WASTE & VENT**

SHEET NUMBER: **P-111**

SHEET NOTES (X)

1. CONNECT NEW 1" CW/HW TO EXISTING 1¼" CW/HW VALVES STUBS AT CEILING, VERIFY EXACT LOCATION AND SIZE IN FIELD PRIOR TO START OF WORK
2. ½" CW DOWN IN WALL TO 6" ABOVE COUNTER, TERMINATE WITH ANGLE STOP VALVE FOR CONNECTION TO DENTAL EQUIPMENT, VERIFY EXACT LOCATION AND CONNECTION REQUIREMENTS WITH DENTAL EQUIPMENT VENDOR PRIOR TO START OF WORK
3. 1" MASTER COLD WATER SHUT-OFF VALVE PROVIDED BY DENTAL EQUIPMENT VENDOR INSTALLED BY PLUMBING CONTRACTOR, MOUNT TOP OF SOLENOID AT 72" AFF
4. WATER AND DENTAL EQUIPMENT REMOTE SHUT-OFF PANEL, COORDINATE INTERLOCK REQUIREMENTS WITH DENTAL EQUIPMENT VENDOR AND ELECTRICAL CONTRACTOR
5. ½" CW DOWN IN WALL TO ⅜" ANGLE STOP VALVE IN BASE CABINET FOR CONNECTION TO OWNER PROVIDED WATER DISPENSER



FLOOR PLAN - PLUMBING WATER

NORTH

SCALE: 3/16" = 1'-0"

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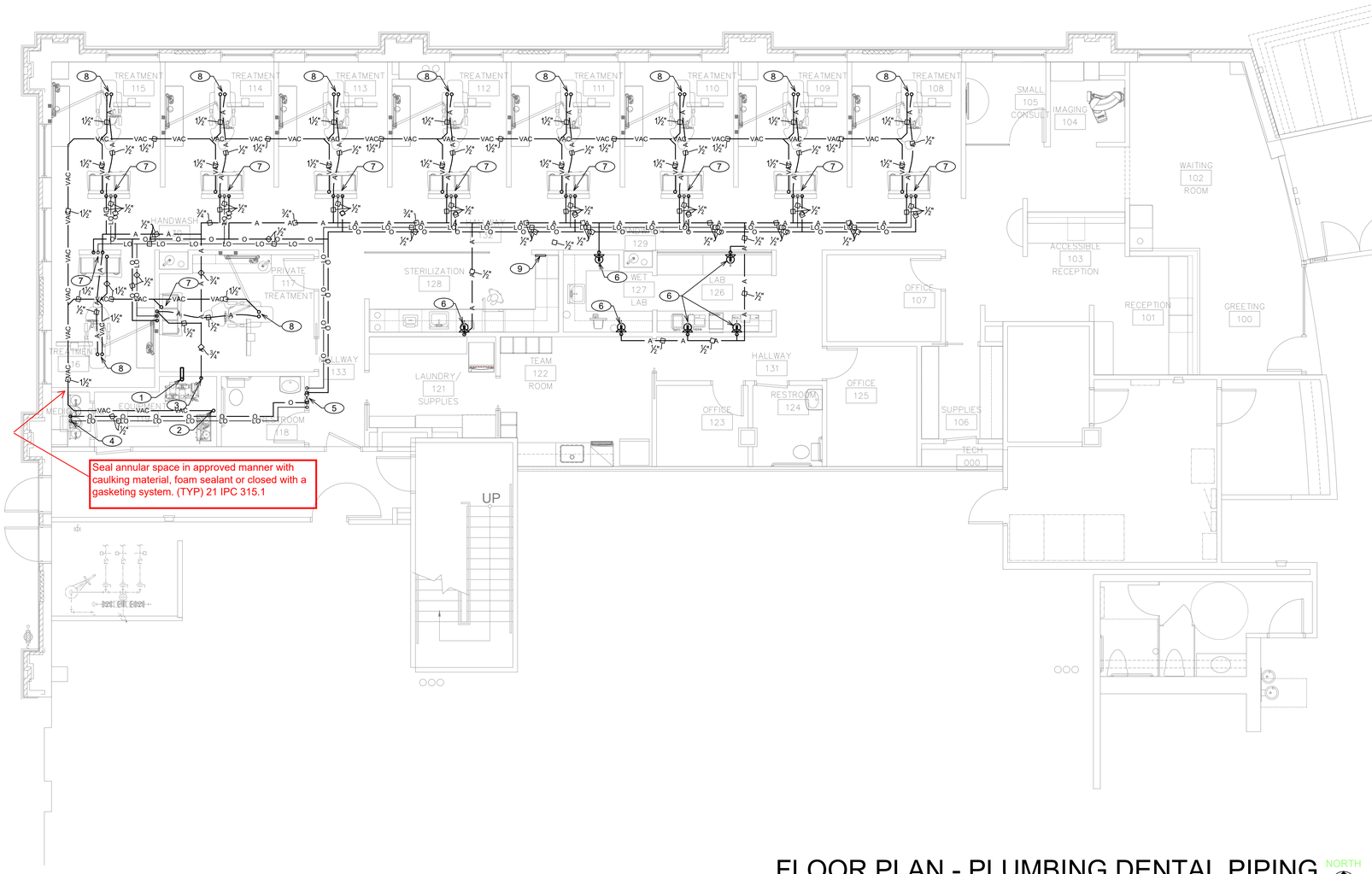
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PFM	PFM

SHEET TITLE: **FLOOR PLAN - PLUMBING WATER**

SHEET NUMBER: **P-121**



SHEET NOTES (X)

1. 2" AIR INTAKE FROM 72" AFF OVER AIR COMPRESSOR UP TO CEILING SPACE INTAKE FROM CEILING RETURN PLENUM, PROVIDE REDUCER AT COMPRESSOR FOR CONNECTION TO COMPRESSOR SUPPLIED HOSE
2. 1½" DENTAL VACUUM FROM VACUUM PUMP DOWN THROUGH FLOOR TO BELOW SLAB
3. ¾" COMPRESSED AIR FROM AIR COMPRESSOR UP TO CEILING SPACE, PROVIDE REDUCER AT WALL FOR CONNECTION TO COMPRESSOR SUPPLIED CONNECTION HOSE
4. OXYGEN AND NITROUS OXIDE DISTRIBUTION MANIFOLD WITH ½" OXYGEN AND ½" NITROUS OXIDE UP TO CEILING, COORDINATE LOCATION AND CONNECTION REQUIREMENTS WITH DENTAL EQUIPMENT SUPPLIER
5. ½" OXYGEN AND NITROUS OXIDE UP AND DOWN FROM EMERGENCY SHUT OFF VALVE PANEL IN WALL AT 60" AFF
6. ½" COMPRESSED AIR DOWN IN WALL TO WALL ANGLE VALVE. COORDINATE LOCATION AND CONNECTION REQUIREMENTS WITH DENTAL EQUIPMENT SUPPLIER RE: ARCHITECTURAL ELEVATIONS
7. 1½" VACUUM UP THROUGH FLOOR FROM BELOW SLAB WITH 1½"x⅝" REDUCER, ½" COMPRESSED AIR, ½" OXYGEN AND ½" NITROUS OXIDE DOWN FROM CEILING ABOVE IN WALL TO DENTAL EQUIPMENT, CONTINUE ½" COMPRESSED AIR DOWN THROUGH SLAB TO BELOW FLOOR AND ROUTE TO CHAIR TOE CONNECTIONS, COORDINATE LOCATION AND CONNECTION REQUIREMENTS WITH DENTAL EQUIPMENT SUPPLIER
8. 1½" VACUUM AND ½" COMPRESSED AIR UP THROUGH FLOOR SLAB TO CHAIR TOE CONNECTIONS, PROVIDE 1½"x⅝" REDUCER AT VACUUM, COORDINATE LOCATION AND CONNECTION REQUIREMENTS WITH DENTAL EQUIPMENT SUPPLIER
9. OXYGEN AND NITROUS OXIDE EMERGENCY ALARM PANEL BY DENTAL EQUIPMENT SUPPLIER, REFER TO ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION

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FLOOR PLAN - PLUMBING DENTAL PIPING

NORTH

SCALE: 3/16" = 1'-0"

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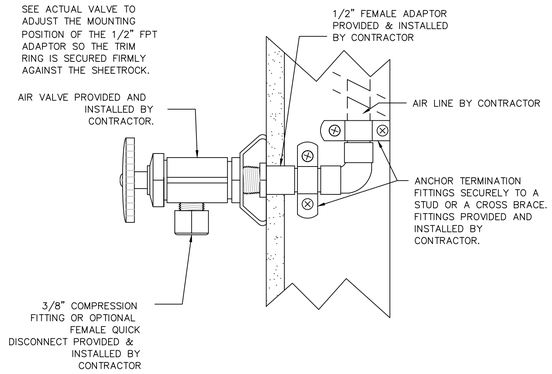
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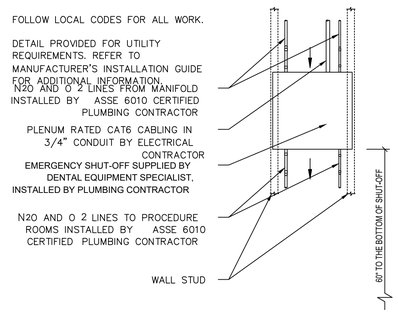
SHEET TITLE: **FLOOR PLAN - PLUMBING DENTAL PIPING**

SHEET NUMBER: **P-131**

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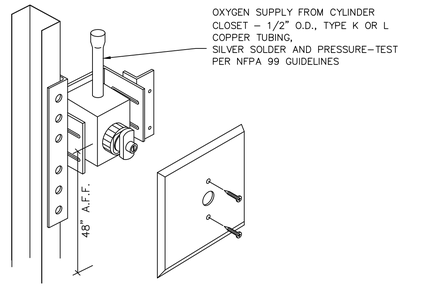


AIR VALVE (MQ-11)



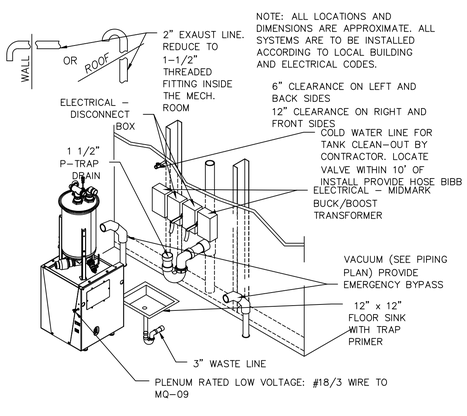
SEE MANUFACTURER'S INSTALLATION MANUAL FOR MORE INFORMATION.

PORTER VANGUARD EMERGENCY SHUT-OFF

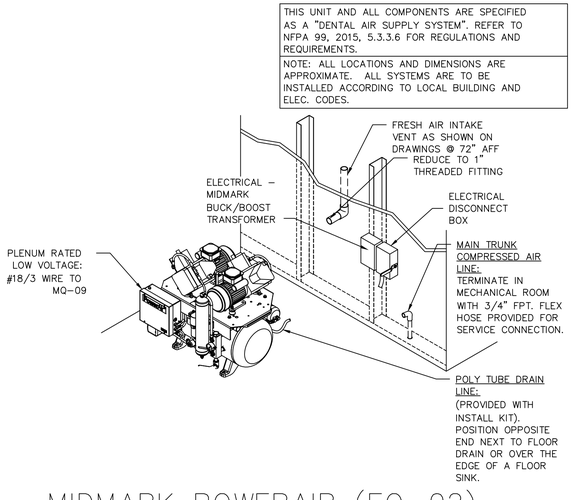


NOTES:
1. THIS IS AN OBSERVATION ROOM OUTLET. REFER TO MANUFACTURER'S INSTALLATION LITERATURE FOR EXACT REQUIREMENTS.
2. REVIEW NFPA 99, CHAPTER 4 FOR OXYGEN PIPING GUIDELINES. CONSULT LOCAL FIRE CODES BEFORE INSTALLATION.

OXYGEN OUTLET (MQ-08)



MIDMARK POWERVAC P10 (EQ-01)



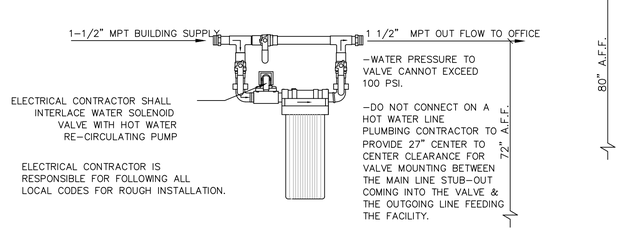
MIDMARK POWERAIR (EQ-02)

ELECTRICAL CONTRACTOR SHALL INSTALL A SINGLE GANG JUNCTION BOX & 1/2" CONDUIT FROM BOX TO 3" ABOVE CEILING (CONTINUOUS TO REMOTE PANEL (MQ-09), WHEN PLENUM SPACE IS NOT ACCESSIBLE). PULL 18/3 PLENUM RATED WIRES BETWEEN VALVE AND REMOTE PANEL (MQ-09).

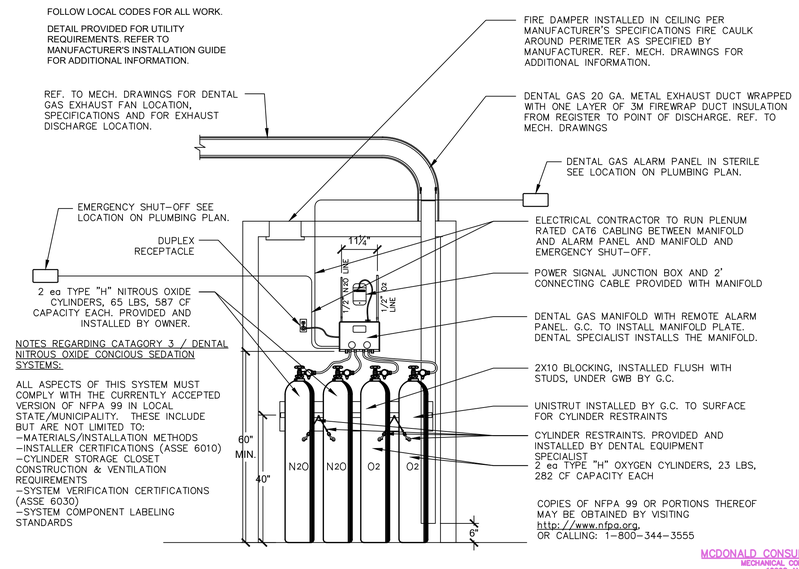
ELECTRICAL CONTRACTOR SHALL PROVIDE SINGLE GANG JUNCTION BOX &115V DUPLEX OUTLET FOR VALVE.

SEE MANUFACTURER'S INSTALLATION MANUAL FOR MORE INFORMATION.

UNIT PROVIDED BY DENTAL EQUIPMENT SPECIALIST, INSTALLED BY PLUMBING CONTRACTOR.



MIDMARK WATER SHUT-OFF W/FILTER (EQ-03)



NOTES REGARDING CATAGORY 3 / DENTAL NITROUS OXIDE CONCIOUS SEDATION SYSTEMS:

ALL ASPECTS OF THIS SYSTEM MUST COMPLY WITH THE CURRENTLY ACCEPTED VERSION OF NFPA 99 IN LOCAL STATE/MUNICIPALITY. THESE INCLUDE BUT ARE NOT LIMITED TO:
-MATERIALS/INSTALLATION METHODS
-INSTALLER CERTIFICATIONS (ASSE 6010)
-CYLINDER STORAGE CLOSET CONSTRUCTION & VENTILATION REQUIREMENTS
-SYSTEM VERIFICATION CERTIFICATIONS (ASSE 6030)
-SYSTEM COMPONENT LABELING STANDARDS

PORTER VANGUARD N_2O, O_2 SYSTEM MANIFOLD

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SHEET TITLE: **PLUMBING DETAILS**

SHEET NUMBER: **P-501**

PLUMBING EQUIPMENT SCHEDULE

KEY	DESCRIPTION	BASIS OF DESIGN
WCO-1	WALL CLEANOUT	JAY R. SMITH FIG 4710-U, S.S. SHALLOW COVER W/ VANDAL PROOF CENTER SCREW.
CWB-1	CLOTHES WASHER BOX	GUY GRAY MODEL #WB-200 EQUIPPED W/ WATTS #2T "DUO-CLOZ" BALL TYPE VALVE, 2" DRAIN PIPE, RECESSED IN WALL BOX.
HB-1	INDOOR HOSE BIBB	WOODFORD MODEL 21 WALL FAUCET ROUGH BRASS, REMOVABLE T HANDLE, 3/4" HOSE THREAD OUTLET, AND MODEL 34ND VACUUM BREAKER

KEY	DESCRIPTION	BASIS OF DESIGN
IMB-1	ICE MAKER BOX	GUY GRAY MODEL W9700 EQUIPPED W/ 1/4 TURN VALVE
FD-1	FLOOR DRAIN	JAY R. SMITH FIG 2010-A-U-PB, DUCO C.I. BODY AND FLASHING COLLAR W/ POLISHED BRONZE, ROUND STRAINER AND VANDAL PROOF SCREWS.
FS-1	8" SQ. FLOOR SINK	JAY R. SMITH FIG 3100-C-15-U, C.I. FLANGED RECEPTOR, 8" SQ. TOP, 6" DEEP W/ FLASHING CLAMP, DOME BOTTOM STRAINER, NICKEL BRONZE RIM AND ALUMINUM RECESSED GRATE SECURED W/ V.P. SCREWS.

PLUMBING FIXTURE SCHEDULE

KEY	DESCRIPTION	MANUF	MODEL	CONNECTIONS					REMARKS
				TRAP	W	V	CW	H/TW	
WC-1	FLR. MTD. WATER CLOSET FLUSH TANK SYSTEM SEAT	KOHLER SLOAN KOHLER	K-3519 FLUSHMATE K-4666	INT.	4"	2"	1/2"	--	1,11
L-1	WALL HUNG LAVATORY w/SHROUD FAUCET STRAINER/OFFSET TAILPIECE SUPPORT CARRIER	KOHLER DELTA KOHLER J.R. SMITH	K-2035-1/K-2057 532-RBMPU-DST K-13885 700	1 1/4"	2"	2"	1/2"	1/2"	1,14
MSB-1	MOP BASIN FAUCET HOSE & HOSE BRACKET	FIAT FIAT FIAT	MSB-2424 830-AA 832-AA	3"	3"	2"	1/2"	1/2"	5

KEY	DESCRIPTION	MANUF	MODEL	CONNECTIONS					REMARKS
				TRAP	W	V	CW	H/TW	
S-1 (STAFF)	SINGLE COMPT. DEEP SINK FAUCET DRAIN STRAINER DISPOSER	ELKAY DELTA ELKAY I.S.E.	ELUH2317 9159-AR-DST LK-35 333/SS	1 1/2"	2"	2"	1/2"	1/2"	---
S-2 (LAB)	SINGLE COMPT. SINK FAUCET PLASTER TRAP EMERGENCY EYE WASH	ELKAY DELTA BY DENTAL EQUIP. VENDOR GURADIAN	LR2222 9159-AR-DST G-5022-VB TMV-G3600	1 1/2"	2"	2"	1/2"	1/2"	---
S-3 (STERI)	SINGLE COMPT. SINK FAUCET DRAIN STRAINER	ELKAY DELTA ELKAY	ELUH2115 9159-AR-DST LK-35	1 1/2"	2"	2"	1/2"	1/2"	---
S-4 (HAND)	HANDWASH SINK FAUCET DRAIN STRAINER	OPELLA DELTA ELKAY	14127 532-RBMPU-DST LK-35	1 1/2"	2"	2"	1/2"	1/2"	---

GENERAL SCHEDULE NOTES:

A. REFER TO ARCHITECTURAL DRAWINGS AND ELEVATIONS FOR EXACT LOCATION AND MOUNTING HEIGHT ELEVATIONS OF ALL PLUMBING FIXTURES PRIOR TO INSTALLATION
B. PROVIDE ALL FIXTURES WITH CHROME PLATED CAST BRASS, ADJUSTABLE 'P' TRAPS WITH CLEANOUT PLUGS, TUBING OUTLETS AND WALL FLANGES UNLESS FIXTURE IS FURNISHED WITH AN INTEGRAL TRAP OR IS PROVIDED ONE AS A STANDARD ACCESSORY
C. PROVIDE ALL FIXTURES WITH CHROME PLATED SUPPLIES WITH ANGLE OR STRAIGHT PATTERN LOOSE KEY STOPS UNLESS FIXTURE IS FURNISHED WITH INTEGRAL STOPS OR STOPS ARE PROVIDED AS STANDARD ACCESSORIES
D. ALL FLUSH VALVES SHALL HAVE A.D.A COMPLIANT HANDLES
E. ALL EXPOSED PIPING SHALL BE POLISHED CHROME
F. COORDINATE ALL CASEWORK MOUNTED FIXTURES WITH BASE CABINET DIMENSIONS PRIOR TO ORDERING FIXTURES. NOTIFY ARCHITECT/ENGINEER IMMEDIATELY IF A CONFLICT EXISTS
G. ACCESSIBLE WATER CLOSETS SHALL BE OPERABLE FROM THE WIDE SIDE OF THE STALL

SCHEDULE REMARKS: (NOT ALL REMARKS MAY BE APPLICABLE TO THIS PROJECT)

1. FIXTURE DESIGNATED TO BE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (A.D.A)
2. REFRIGERATION SYSTEM CHARGED WITH R-134A REFRIGERANT
3. FAUCET COMPLETE WITH RIGID GOOSENECK SPOUT, E3-VP AERATOR AND 317 WRIST BLADE HANDLES. INSULATE TRAP AND WATER SUPPLIES
4. EXTEND CHROME PLATED TAILPIECE TO PLASTER TRAP
5. FAUCET TO HAVE ROUGH CHROME FINISH AND SHALL BE MOUNTED 3'-6" A.F.F. PROVIDE MSG 2424 S.S. WALL GUARD AND VANDAL-PROOF DRAIN
6. FAUCET LEDGE SHALL BE PUNCHED FOR SINGLE HOLE FAUCET SPECIFIED
7. PROVIDE CHROME PLATED TAILPIECE EXTENSION AND TURN DOWN TO ALLOW FOR KNEE-SPACE CLEARANCE.
8. INSTALL DISPOSER IN RIGHT-HAND COMPARTMENT AND DRAIN STRAINER IN LEFT-HAND COMPARTMENT
9. ROUGH-IN AND CONNECT TO SINK BASIN FURNISHED AND INSTALLED BY CASEWORK SUPPLIER
10. MOUNT SHOWER HEAD AT 6'-0" A.F.F.
11. 1.28 GALLONS PER FLUSH
12. 0.5 GALLONS PER FLUSH
13. PROVIDE TAIL PIECE DRAIN CONNECTION FOR DRAIN FROM ULTASONIC CLEANER
14. PROVIDE WATTS SERIES LFMMV ASSE 1070 LISTED THERMOSTATIC MIXING VALVE SET AT 90°F
15. REFER TO ARCHITECT FOR REQUIRED FIXTURE/TRIM COLOR
16. PLASTER TRAP PROVIDED BY DENTAL EQUIPMENT VENDOR INSTALLED BY PLUMBING CONTRACTOR
17. PROVIDE GOOSE NECK FAUCET SPOUT ONLY CONTROL WITH TAPMASTER CABINET DOOR KNEE CONTROL
18. STAINLESS STEEL PERFORATED GRATE FULL WIDTH OF TOILET ROOM
19. HOT WATER DISPENSER, 120V-1Ø, 750 WATT EQUAL TO INSINKERATOR MODEL H-HOT150

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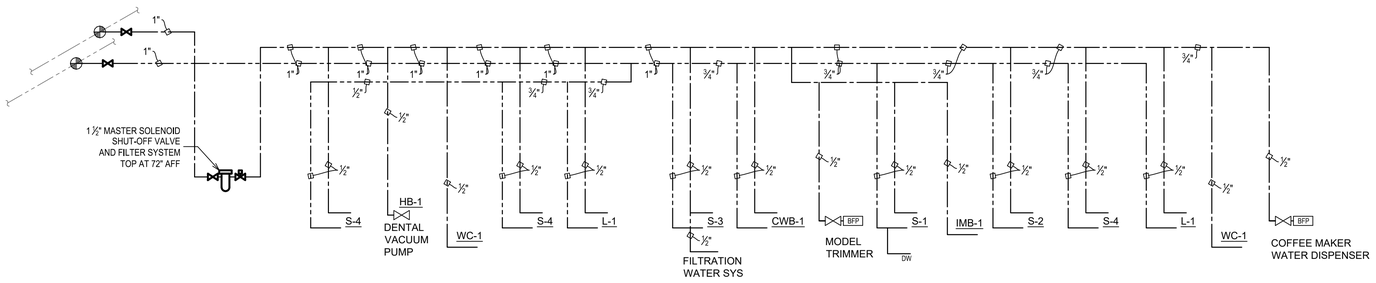
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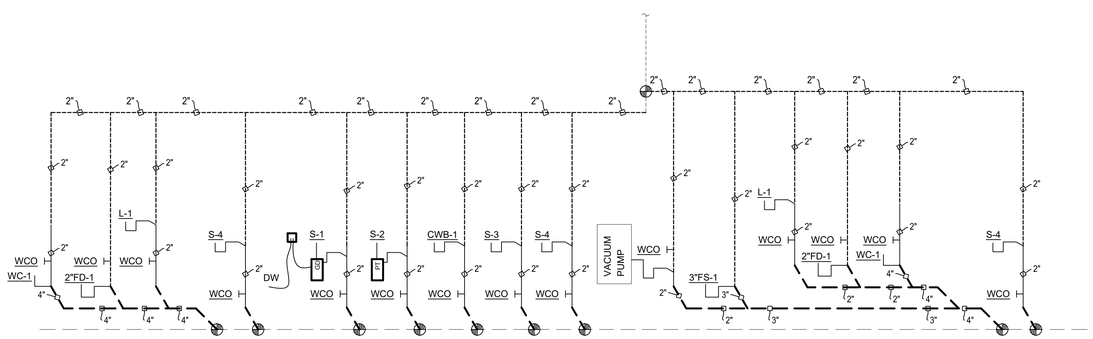
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DRAWN BY: PFM
CHECKED BY: PFM
SHEET TITLE: PLUMBING SCHEDULES
SHEET NUMBER: P-601



COLD & HOT WATER RISER DIAGRAM

TRAP PRIMERS SHALL BE INSTALLED ON ALL FLOOR DRAINS AND FLOOR SINKS

The dry vent must rise 6" vertically above the flood level rim of the highest trapped fixture being vented. 2021 IPC 905.4



Provide drains no smaller than allowed by 2021 IPC 709.1 and 710.1(1)

WASTE AND VENT RISER DIAGRAM

TRAP PRIMERS SHALL BE INSTALLED ON ALL FLOOR DRAINS AND FLOOR SINKS

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Approved as Noted: Y. Munoz
Date: Jun 29, 2023
2021 INTERNATIONAL CODES & 2020 NEC

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IN BLUE INK OR DIGITALLY SIGNED BY
PETER F. McDONALD, PE

Sanders and Soult Family Dentistry
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1444 S. Potomac, Suite 100
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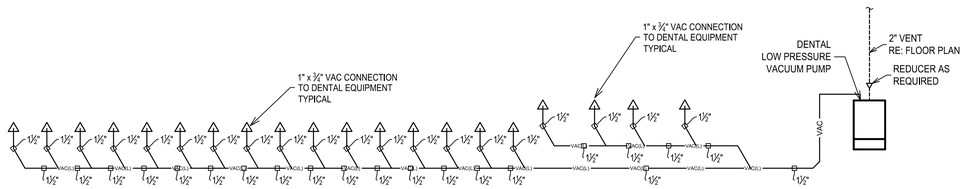
PROJECT NUMBER: SS101/2023032

DRAWN BY: PFM | CHECKED BY: PFM

SHEET TITLE: **PLUMBING RISER DIAGRAMS**

SHEET NUMBER: **P-701**

Approved for Plumbing Review Only
City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Y. Munoz
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DENTAL VACUUM SYSTEM PIPING RISER DIAGRAM

VACUUM NOTES

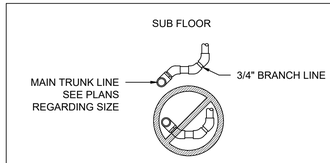
THE VACUUM PIPING LAYOUT HAS A LARGE EFFECT ON THE EFFICIENCY AND RELIABILITY OF THE DENTAL VACUUM SYSTEM. REFER TO MANUFACTURER'S PRE-INSTALLATION GUIDE PROVIDED BY HENRY SCHEIN EQUIPMENT SALES SPECIALIST (ESS) FOR SPECIFIC SIZING OF STUB-UP, TRUNK, AND BRANCH LINES.

TO ENSURE OPTIMUM VACUUM PERFORMANCE, INSTALL MAIN LINE DIRECTLY BELOW THE CABINET OR WALL JUNCTION BOX TO REDUCE OR ELIMINATE BRANCH LINE RUNS WHEREVER POSSIBLE.

I. STUB-UP
TERMINATE VACUUM TRUNK LINE IN MECHANICAL ROOM W/ VERTICAL STUB-UP 3" A.F.F. PLUMBING CONTRACTOR TO PROVIDE FPT ADAPTOR ON END OF STUB-UP. SIZE OF ADAPTOR TO BE DETERMINED BY TRUNK AND PUMP INTAKE PIPE SIZES. IN THE CASE OF DUAL TRUNK LINE SYSTEM, PROVIDE ENOUGH SPACE BETWEEN STUB-UPS TO INSTALL TEES ON BOTH LINES.

2. TRUNK LINE(S)
VACUUM TRUNK LINES(S) TO BE SUPPORTED EVERY 6'-0" TO PREVENT SAG AND SLOPED A MINIMUM OF 1/4" PER 10'-0" TOWARD THE VACUUM PUMP.

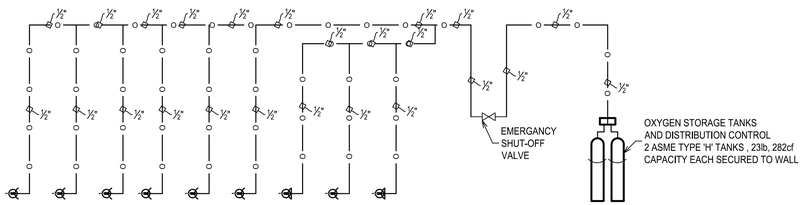
3. BRANCH LINE(S)
BRANCH LINES ARE TO BE "SWEEPING" 90 DEGREE TURNS TO AVOID VACUUM LOSS. A "Y" TEE FITTING SHOULD BE USED WHEN AVAILABLE TO BRANCH TWO LINES TOGETHER.



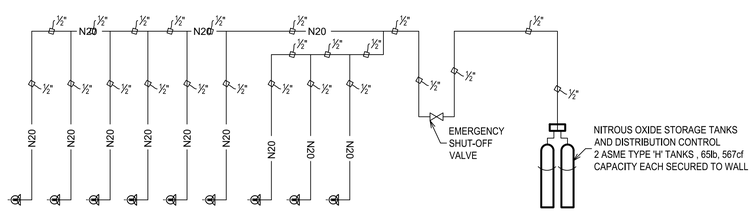
DO NOT PIPE TRUNK LINE IN A SERIES MANNER LOOPING FROM J-BOX TO J-BOX. A CONTINUOUS TRUNK LINE MUST BE MAINTAINED FROM THE PUMP TO THE FURTHEST J-BOX USING BRANCH LINES OFF OF THE TRUNK LINE TO PICK UP EACH J-BOX OUTLET. TRUNK LINE MAY FOLLOW DRAIN LINE TRENCHES WITHIN REASON. USE ONLY 45° EL'S. DO NOT USE ANY 90° EL'S. ALL SUB FLOOR SCH 40 PVC CONNECTIONS ARE TO BE PLUMBED WITH 45° EL'S USING DETAIL A FOR TEEING BRANCH LINE CONNECTIONS INTO TRUNK LINE.

SPECIAL NOTE:
IF VACUUM LINES ENCROACH ON EITHER A WALL OR COLUMN FOOTING, USE 45 DEGREE ELBOWS TO PIPE AROUND FOOTING SO PIPE REACHES PROPER LOCATION.

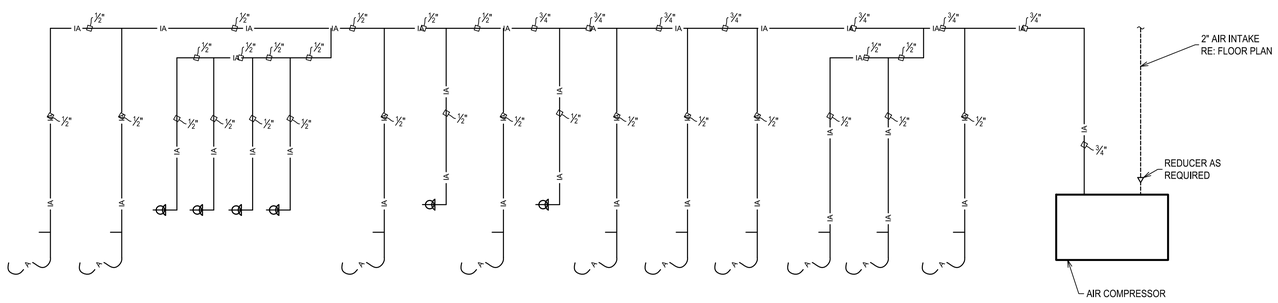
COORDINATE DETAILS WITH DENTAL EQUIPMENT SPECIALIST



OXYGEN SYSTEM PIPING RISER DIAGRAM



NITROUS OXIDE SYSTEM PIPING RISER DIAGRAM



DENTAL COMPRESSED AIR SYSTEM PIPING RISER DIAGRAM

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SHEET TITLE: **DENTAL PIPING RISER DIAGRAMS**

SHEET NUMBER: **P-702**

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SHEET METAL GENERAL NOTES

1. INSTALL CEILING REGISTERS A MINIMUM OF 12" FROM EXTERIOR WALL.
2. PROVIDE A MINIMUM OF THREE TIMES THE FAN DIAMETER OF STRAIGHT DUCTWORK OFF THE SUPPLY AIR DISCHARGE BEFORE ANY TAKEOFFS OR ELBOWS.
3. PROVIDE LOCKING QUADRANT VOLUME BALANCING DAMPERS AT ALL BRANCH TAKEOFFS TO CEILING/SIDEWALL SUPPLY AND EXHAUST DEVICES
4. SPACE ABOVE CEILING IS TO BE USED AS A RETURN AIR PLENUM WHERE DUCTWORK IS NOT INDICATED ABOVE RETURN AIR GRILLES.
5. PROVIDE ACCESS DOORS IN DUCTWORK WHERE INDICATED OR REQUIRED FOR ACCESS TO SYSTEM COMPONENTS INCLUDING THE FOLLOWING: DAMPER MOTORS AND/OR MOTOR OPERATED DAMPERS, FIRE DAMPERS AND SMOKE DAMPERS.
6. DUCT DIMENSIONS SHOWN ON DRAWINGS ARE NET FREE INTERIOR, NOT INCLUDING LINING OR INSULATION.
7. CONTRACTOR MAY RESIZE DUCTWORK SHOWN ON DRAWINGS IF REQUIRED PROVIDED RESIZED DUCTWORK HAS SAME CROSS SECTIONAL AREA AS SPECIFIED DUCT SIZE

DEMOLITION NOTES:

1. EXISTING HVAC PIPING, DUCTWORK AND EQUIPMENT SHOWN IS BASED ON EXISTING AND FIELD OBSERVATION WITHOUT DEMOLITION. DURING DEMOLITION, ANY CLARIFICATION REQUIRED TO DETERMINE SCOPE OF WORK SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.
2. THE CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS, PRIOR TO STARTING DEMOLITION.
3. DRAWINGS DO NOT SHOW EVERY EXISTING PIPE, CONDUIT, DUCT, ETC. CONTRACTOR SHALL TAKE CARE TO REMOVE ONLY ITEMS REQUIRED TO BE REMOVED AND VERIFY PIPES, DUCTS, ETC. BEFORE REMOVAL.

GENERAL NOTES:

1. GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH MECHANICAL DRAWING OF THIS SET. SEE EACH DRAWING FOR SPECIFIC NOTES APPLICABLE TO THAT DRAWING.
2. OUTSIDE AIR INTAKE OPENINGS FOR VENTILATION AIR SHALL BE LOCATED 10 FEET MEASURED IN ANY DIRECTION FROM ANY FLUES, VENTS, CHIMNEYS, GAS METERS, GAS REGULATORS, PLUMBING VENTS UNLESS TOP OF SUCH INTAKE OPENING IS 2 FEET BELOW ANY OF THE LISTED ITEMS.
3. OVERHEAD PIPING IN SPACES WITHOUT HUNG CEILINGS SHALL BE RUN AS CLOSE TO ROOF DECK AS PRACTICABLE, AS CLOSE TO PARALLEL JOISTS AS POSSIBLE AND ABOVE LIGHTING FIXTURES TO CONCEAL PIPING.
4. OVERHEAD DUCTWORK AND PIPING IN SPACES WITH CEILINGS SHALL BE CONCEALED UNLESS OTHERWISE NOTED.
5. COORDINATE LOCATION OF GRILLES, REGISTERS, DIFFUSERS, THERMOSTATS AND OTHER WALL OR CEILING MOUNTED HVAC ACCESSORIES WITH REFLECTED CEILING PLAN. COORDINATE LIGHTING FIXTURE LAYOUT AND ACCESSORIES INSTALLED BY OTHER TRADES SO AS TO PRESENT A NEAT AND ATTRACTIVE INSTALLATION THROUGHOUT THE ENTIRE BUILDING. IT IS THE INTENT FOR CEILING MOUNTED GRILLES, REGISTERS AND DIFFUSERS TO BE INSTALLED IN THE CENTER OF CEILING PANELS.
6. ARRANGE PIPING AND DUCTWORK, PARTICULARLY ABOVE CEILING, AS REQUIRED TO CLEAR STRUCTURE, DUCTS, CONDUIT, ETC., ALLOWING SPACE FOR PIPE HANGERS, EXPANSION LOOPS AND ACCESS TO VALVES, FILTERS AND MAINTENANCE OF EQUIPMENT.
7. THE DIAMETER OF THE SUPPLY PIPE AT ANY GAS FIRED EQUIPMENT SHALL NOT BE OF A SMALLER SIZE THAN THE INLET CONNECTION TO THE EQUIPMENT.
8. EQUIPMENT WITH FILTERS SHALL BE INSTALLED SO THAT FILTERS CAN BE EASILY REMOVED AND REPLACED.
9. CONTRACTOR SHALL VERIFY REFRIGERANT PIPE SIZES WITH EQUIPMENT MANUFACTURER FOR THE INDICATED INSTALLATION.
10. COORDINATE LOCATION AND INSTALLATION OF EQUIPMENT WITH OTHER TRADES.
11. THERMOSTATS SHALL BE LOCATED IN THE ROOMS INDICATED. INSTALL AT 4'-0" ABOVE FINISH FLOOR.
12. VALVES AND SPECIALTIES SHALL BE LINE SIZE, EXCEPT FOR CONTROL & BALANCING VALVES OR UNLESS NOTED OTHERWISE.
13. EXTEND DRAIN LINES TO NEAREST FLOOR DRAIN OR AS INDICATED. ROUTING SHALL NOT INTERFERE WITH PASSAGEWAYS AND MAINTENANCE. DRAINS FROM AIR CONDITIONING CONDENSATE DRAIN PANS SHALL BE TRAPPED. SLOPE SUSPENDED CONDENSATE DRAIN PIPING AT 1/8" PER FOOT (1 PER 100).
14. PIPING AND DUCTWORK INSULATION SHALL BE RUN CONTINUOUSLY THROUGH NON-RATED FLOORS, WALLS AND PARTITIONS, UNLESS OTHERWISE NOTED.
15. NO PIPING SHALL BE SMALLER THAN ½" UNLESS OTHERWISE NOTED.
16. RUN-OUTS SHALL PITCH DOWN IN DIRECTION OF FLOW A MINIMUM OF 1/8" PER FOOT (1PER 100).
17. FOR PIPE SIZES NOT INDICATED ON PLANS SEE EQUIPMENT CONNECTION DETAILS, FLOW DIAGRAMS, RISER DIAGRAMS AND SCHEDULES.
18. PROVIDE UNION OR FLANGED CONNECTIONS AT EACH PIECE OF EQUIPMENT AND ON BOTH SIDES OF CONTROL VALVES AND PRESSURE REGULATING VALVES. PROVIDE SHUT-OFF VALVES ON BOTH SIDES OF AUTOMATIC VALVES.
19. RELIEF VALVE DRAIN PIPING SHALL BE EXTENDED TO 6" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
20. FLOOR MOUNTED EQUIPMENT IN THE MECHANICAL ROOM SHALL BE LOCATED ON 6" THICK CONCRETE PADS WITH CHAMFERED EDGES UNLESS OTHERWISE NOTED.
21. PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE SPECIFICATION. ADDITIONAL SUPPORTS OR HANGERS SHALL BE ADJACENT TO ELBOWS, TO PREVENT WEIGHT OF PIPING BEING PLACED ON THE EQUIPMENT.
22. CORRECT SETTING ON BALANCING FITTINGS SHALL BE PERMANENTLY MARKED.
23. LOCATE AND SIZE CONCRETE PADS AND CURBS FOR MECHANICAL EQUIPMENT IN ACCORDANCE WITH ACTUAL EQUIPMENT PURCHASED.
24. FOR LOCATION OF MOTOR STARTERS, SEE ELECTRICAL DRAWINGS.

HVAC LEGEND

NOT ALL ITEMS LISTED BELOW ARE USED ON THIS SET OF DRAWINGS

PIPING SYMBOLS

SYMBOL	DESCRIPTION
	ARROW IN LINE INDICATES DIRECTION OF FLOW
	INDICATES PIPE SLOPE DOWN
XXXXXXXXXXXX	REMOVE EXISTING
	BOTTOM PIPE CONNECTION
	PIPING UP
	PIPING DOWN
	PIPING CAP OR PLUG
	PUMP

HVAC PIPING

SYMBOL	DESCRIPTION
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
CS	CONDENSER SUPPLY
CR	CONDENSER RETURN
LPS	LOW PRESSURE STEAM
LPC	LOW PRESSURE CONDENSATE
HPS	HIGH PRESSURE STEAM
HPC	HIGH PRESSURE CONDENSATE
PC	PUMPED CONDENSATE
D	EQUIPMENT DRAIN
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
RHG	REFRIGERANT HOT GAS
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
FOV	FUEL OIL VENT

GENERAL

SYMBOL	DESCRIPTION
#	REFERENCE BUBBLE * DETAIL NUMBER OR SECTION LETTER # REFERENCE DRAWING NUMBER
# SHT.#	RISER BUBBLE DESIGNATION
EQUIP-X	MECHANICAL / PLUMBING EQUIPMENT DESIGNATION
	POINT OF DISCONNECT (DEMO
	CONNECT NEW TO EXISTING

CONTROL DEVICES AND DAMPERS

SYMBOL	DESCRIPTION
H	HUMIDISTAT
PS	PRESSURE SENSOR
S	SENSOR
T	WALL MOUNTED THERMOSTAT
	UNIT MOUNTED THERMOSTAT
SD	DUCT SMOKE DETECTOR
$x	SWITCH (" INDICATES EQ.)
	FIRE DAMPER
	COMBINATION FIRE AND SMOKE DAMPER
	MANUAL VOLUME DAMPER W/LOCKING QUADRANT
M	MOTORIZED DAMPER

PIPING SYMBOLS

SYMBOL	DESCRIPTION
	BALANCING VALVE/ FLOW MEASURING DEVICE
	BALL VALVE
	OS&Y GATE VALVE
	SHUT-OFF VALVE
	GLOBE VALVE
	CHECK VALVE
	BUTTERFLY VALVE
	FLOW SWITCH
	SOLENOID VALVE
	PRESSURE REDUCING VALVE
	GAS VALVE
	MIXING VALVE
RBFP	REDUCED PRESSURE BACKFLOW PREVENTER
	ATMOSPHERIC VACUUM BREAKER
	RELIEF VALVE
	STRAINER
	STRAINER WITH BLOW-OFF VALVE
	UNION
	PRESSURE GAUGE
	THERMOMETER
P/T	PRESSURE AND TEMPERATURE TAP
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	FLEXIBLE CONNECTOR
	AREA/FLOOR DRAIN
	EXPANSION JOINT
	PIPE ANCHOR
	ALIGNMENT GUIDE
	PLUG VALVE
	AUTOMATIC 2-WAY TEMPERATURE CONTROL VALVE
	AUTOMATIC 3-WAY TEMPERATURE CONTROL VALVE
	FLOW SWITCH
	THERMOSTATIC STEAM TRAP
	FLOAT & THERMOSTATIC STEAM TRAP
B	INVERTED BUCKET STEAM TRAP
	MANUAL AIR VENT

DOUBLE LINE DUCTWORK

	RECTANGULAR SUPPLY AIR DUCT UP
	RECTANGULAR SUPPLY AIR DUCT DOWN
	RECT RETURN/EXH AIR DUCT UP
	RECT RETURN/EXH AIR DUCT DOWN
	ROUND DUCT UP
	ROUND DUCT DOWN
	BRANCH DUCT 45 TAKE-OFF
	RECTANGULAR DUCT ELBOW WITH TURNING VANES
	RADIUS ELBOW RECTANGULAR/ROUND DUCT
	DUCT TRANSITION
	FLEX. CONNECTION
	MANUAL VOLUME DAMPER W/LOCKING QUADRANT

SINGLE LINE DUCTWORK

	RECTANGULAR SUPPLY AIR DUCT UP
	RECTANGULAR SUPPLY AIR DUCT DOWN
	RECT RETURN/EXH AIR DUCT UP
	RECT RETURN/EXH AIR DUCT DOWN
	ROUND DUCT UP
	ROUND DUCT DOWN
	BRANCH DUCT 45 TAKE-OFF
	RECTANGULAR DUCT ELBOW WITH TURNING VANES
	RADIUS ELBOW RECTANGULAR/ROUND DUCT
	DUCT TRANSITION
	CONICAL SPIN-IN FITTING
	CONICAL SPIN-IN FITTING W/DAMPER
	FLEXIBLE DUCT

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	(E)	EXISTING	LCO	LINE CLEAN OUT	PRV	PRESSURE REDUCING VALVE
AFG	ABOVE FINISHED GRADE	EC	ELECTRICAL CONTRACTOR	MC	MECHANICAL CONTRACTOR	POC	POINT OF CONNECTION
ALP	ALARM PANEL	EL	ELEVATION	MH	MANHOLE	PSCO	PUBLIC SERVICE COMPANY
AP	ACCESS PANEL	FCO	FLOOR CLEAN OUT	(N)	NEW	SCO	SURFACE CLEAN OUT
BFP	BACKFLOW PREVENTER	FPC	FIRE PROT. CONTRACTOR	NC	NORMALLY CLOSED	SRV	SAFETY RELIEF VALVE
CB	CATCH BASIN	GC	GENERAL CONTRACTOR	NIC	NOT IN CONTRACT	TMV	THERMOSTATIC MIXING VALVE
℄	CENTERLINE	IE	INVERT ELEVATION	NO	NORMALLY OPEN	TYP	TYPICAL
DNZ	DOWNSPOUT NOZZLE	KEC	KIT. EQ. CONTRACTOR	NTS	NOT TO SCALE	WCO	WALL CLEAN OUT
						VTR	VENT THROUGH ROOF

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

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SHEET TITLE: **HVAC LEGEND & GENERAL NOTES**

SHEET NUMBER: **M-001**

HVAC SPECIFICATIONS

BASIC REQUIREMENTS:
GENERAL PROVISIONS OF THE CONTRACT INCLUDING GENEREAL ANS SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS APPLY TO WORK OF THIS SECTION. ALL OF THE DRAWINGS AND SPECIFICATIONS ARE CONSIDERED A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING AND BEING FAMILIAR WITH ALL CONTRACT DOCUMENTS TO DETERMINE THE SCOPE OF WORK REQUIRED.

IN FINAL CONNECTIONS TO EQUIPMENT PROVIDED BY OTHER CONTRACTS OR CONTRACTORS, IT IS THE INTENT OF THE DRAWINGS TO PROVIDE AS MUCH INFORMATION AS POSSIBLE ON EQUIPMENT PROVIDED BY OTHERS, HOWEVER, THE EXTENT OF FINAL CONNECTIONS AND TYPE OF FINAL CONNECTIONS SHALL BE DETERMINED BY THE ACTUAL EQUIPMENT SUPPLIED BY OTHERS. THIS CONTRACTOR SHALL INCLUDE IN HIS BASE BID, REASONABLE COST FOR THE INSTALLATION OF EQUIPMENT PROVIDED BY OTHERS, HE SHALL NOT BE AWARDED EXTRA COSTS AFTER THE CONTRACT IS AWARDED UNLESS THE EQUIPMENT SO INSTALLED IS NOT SHOWN ON ANY OF THE CONTRACT DOCUMENTS.

WORK INCLUDED UNDER THIS DIVISION SHALL CONSIST OF FURNISHING ALL MATERIALS, SUPPLIES, EQUIPMENT, TOOLS, INSURANCE, TRANSPORTATION AND FACILITIES, AND PERFORMING ALL LABOR AND SERVICES NECESSARY FOR COMPLETE INSTALLATION OF THE NEW MECHANICAL SYSTEM(S).

ARRANGE FOR PIPE SPACES, CHASES, SLOTS, AND OPENINGS IN BUILDING STRUCTURE DURING PROGRESS OF CONSTRUCTION, TO ALLOW FOR MECHANICAL INSTALLATIONS. COORDINATE REQUIREMENTS FOR ACCESS PANELS AND DOORS FOR MECHANICAL ITEMS REQUIRING ACCESS THAT ARE CONCEALED BEHIND FINISHED SURFACES.

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING, FIRE, PLUMBING, MECHANICAL, ENERGY CONSERVATION CODES AND LOCAL JURISDICTION AMENDMENTS. PAY FOR ALL FEES AND PERMITS AS ARE NECESSARY FOR THE COMPLETE INSTALLATION OF MECHANICAL SYSTEMS.

DRAWINGS ARE DIAGRAMMATIC, INDICATING ONLY APPROXIMATE LOCATIONS OF SERVICES, DUCTWORK, APPARATUS, AND PIPING UNLESS NOTED OTHERWISE, AND ARE NOT TO BE SCALED. ACTUAL INSTALLATION MUST CONFORM TO ACTUAL BUILDING CONDITIONS AND VERIFIED IN THE FIELD. THE ARCHITECT/ ENGINEER RESERVES THE RIGHT TO EFFECT REASONABLE CHANGES IN THE LOCATION OF EQUIPMENT UP TO THE TIME OF ROUGH-IN WITHOUT ADDITIONAL COST TO THE OWNER. ANY AND ALL CHANGES SHALL BE APPROVED BY THE ARCHITECT/ ENGINEER. MAINTAIN MANUFACTURERS RECOMMENDED CLEARANCES AROUND ALL EQUIPMENT.

PROJECT SHALL BE COORDINATED WITH THE EXISTING BUILDING SERVICES AND SHALL INCLUDE ALL ITEMS NECESSARY FOR COMPLETE AND FULLY OPERATIONAL TENANT MECHANICAL SYSTEMS. MAKE CONNECTIONS TO AND EXTEND SYSTEMS INSTALLED BY OTHERS AND/OR FURNISHED BY OTHERS. PROVIDE ACCESSORIES AND INCIDENTAL ITEMS AS REQUIRED FOR A COMPLETE AND FULLY OPERATIONAL SYSTEM WHETHER OR NOT SPECIFICALLY SPECIFIED AND/OR SHOWN ON THE PLANS.

DO NOT SCALE DRAWINGS. COORDINATE WITH OTHER TRADES FOR A COORDINATED INSTALLATION WITHIN THE AVAILABLE SPACE. WHERE CROWDED CONDITIONS EXIST, PREPARE COORDINATION DRAWINGS SHOWING ALL TRADE CONFLICTS AND SUBMIT TO THE ARCHITECT FOR APPROVAL AND DIRECTION PRIOR TO ROUGH-IN OR INSTALLATION. RELOCATION OF INLETS, OUTLETS, AND/OR APPARATUS MADE PRIOR TO ROUGH-IN OR REQUIRED BY FIELD CONDITIONS FOR COORDINATION SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER OR HIS AGENTS.

ALL WORK SHALL BE PERFORMED BY PROPERLY LICENSED MECHANICS OR UNDER THEIR DIRECT SUPERVISION. ALL MATERIALS AND EQUIPMNT SHALL MEET THE REQUIREMENTS OF THE APPLICABLE STANDARDS OF UL AND SHALL BEAR THE UL LABEL AS EVIDENCE THAT THE MATERIAL AND/OR EQUIPMNT MEETS THIS REQUIREMENT.

INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND DETAILS UNLESS OTHERWISE NOTED IN THESE PLANS.

ALL EQUIPMENT START UP AND TESTING SHALL BE PERFORMED BY THE EQUIPMENT MANUFACTURER TRAINED SERVICE TECHNICIAN.

SUBMIT MANUFACTURER'S LITERATURE (SHOP DRAWINGS) FOR MATERIALS AND EQUIPMENT. SUBMITTAL SHALL INCLUDE EQUIPMENT PERFORMANCE DATA AT ELEVATION AND/OR LOCAL CONDITIONS. EQUIPMENT CUTSHEETS OR CATALOG COPIES ARE NOT ACCEPTABLE.

SUBMITTAL SHALL BEAR THE APPROVAL OF THE GENERAL CONTRACTOR FOR COMPLIANCE WITH COORDINATION AND THESE SPECIFICATIONS PRIOR TO SUBMITTAL TO ARCHITECT AND/OR HIS AGENCIES.

ANY EQUIPMENT SUBSTITUTED FOR WHAT IS SCHEDULED SHALL BE EQUAL TO THAT SCHEDULED IN CONTROLS, ACCESSORIES, AND PERFORMANCE REGARDLESS OF MANUFACTURER.

SEPARATE PDF FILE PACKAGES SHALL BE SUPPLIED FOR EACH SECTION AND EACH SUBMITTAL TYPE, EACH PDF SHALL REPRESENT A SINGLE STANDALONE SUBMITTAL.

SUBMITTAL AND SHOP DRAWINGS SHALL IDENTIFY EACH SUBMITTED ITEM WITH NUMBERS OR LETTERS IDENTICAL TO THOSE LISTED OR SCHEDULED ON THE DRAWINGS OR SPECIFICATIONS, SUBMITTALS NOT INCLUDING SUCH MARKINGS WILL BE RETURNED NOT REVIEWED.

SUBMITTING SUBCONTRACTOR SHALL ALLOW FIFTEEN (15) DAYS, FOR REVIEW AND COMMENT.

FIELD LABEL ALL MECHANICAL EQUIPMENT AND PIPING AS INDICATED ON THE PLANS PER MECHANICAL AND LOCAL CODE REQUIREMENTS. INDICATE DIRECTION OF FLOW ON PIPING.

PROVIDE 2" DEEP AUXILIARY DRAIN PAN WITH SEPARATE DRAIN LINE UNDER HEATING AND COOLING COILS (AIR HANDLING UNITS, FAN COIL UNITS, INLINE PUMPS, ETC.) WHERE CONDENSATION OR LEAKAGE CAN OCCUR.

BASIC MATERIALS:

PROVIDE MECHANICAL SYSTEM CONTROLS, CONTROLLERS, CONTROL TRANSFORMER, DISCONNECTS, STARTERS, CONTROL WIRING, ASSOCIATED CONTROL POWER WIRING, AND ALL WORK NECESSARY FOR A COMPLETE AND OPERATIONAL MECHANICAL SYSTEM.

PROVIDE SUPPLEMENTAL STEEL AND SUPPORTS AS REQUIRED FOR INSTALLATION OF MECHANICAL MATERIALS, EQUIPMENT, AND APPARATUS.

PROVIDE VIBRATION ISOLATION ON ALL MECHANICAL EQUIPMENT. INSTALL FLEXIBLE DUCT CONNECTORS ON ALL AIR HANDLING UNIT SUPPLY OUTLET AND RETURN INLET.

ALL WORK IN FINISHED AREAS SHALL BE CONCEALED UNLESS SPECIFICALLY NOTED AS EXPOSED ON THE PLANS. PRIOR TO THE INSTALLATION OF ANY EXPOSED WORK THIS CONTRACTOR SHALL VERIFY AND OBTAIN ARCHITECTURAL APPROVAL OF LOCATION AND EXTENT.

BALANCE ALL SUPPLY AND EXHAUST OUTLETS TO AIRFLOW SHOWN. FINAL BALANCE MAY HAVE UP TO 10% DISCREPANCY OF THE CFM INDICATED ON THE PLANS. IF THERE IS AN AIR BALANCE DISCREPANCY GREATER THAN 10%, BALANCE CONTRACTOR SHALL CONTACT ENGINEER. PROVIDE MANUAL DAMPERS ON DIRECT DRIVE UNITS AS REQUIRED TO MEET SPECIFIED AIR QUANTITIES.

CERTIFIED TEST AND BALANCE REPORT SHALL BE PROVIDED TO ENGINEER FOR REVIEW AND AVAILABLE ON-SITE PRIOR TO FINAL MECHANICAL INSPECTIONS

CONFIRM ACTUAL VOLTAGES, PHASE AND CHARACTERISTICS OF EXISTING EQUIPMENT AND APPARATUS FURNISHED BY TENANT, OTHER TRADES, AND/OR DIVISIONS. CONFIRM PRIOR TO ROUGH-IN. IF DISCREPANCIES ARE NOTED TO THE INSTRUCTIONS OF THESE PLANS AND SPECIFICATIONS, SUBMIT THE NOTED DISCREPANCIES TO THE ARCHITECT FOR DIRECTION PRIOR TO PROCEEDING.

PROVIDE DUCT SMOKE DETECTORS FOR AUTOMATIC EQUIPMENT SHUTOFF IN AIR-MOVING SYSTEMS THAT RETURN IN EXCESS OF 2,000 CFM TO ENCLOSED SPACES WITHIN BUILDING PER AUTHORITY HAVING JURISDICTION. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE AIR HANDLING UNIT AUTOMATIC SHUT-DOWN WIRING. DUCT/SMOKE DETECTOR WIRING AND AUDIO-VISUAL ALARM LOCATED ON CEILING WHEN REQUIRED. DETECTORS SHALL BE COMPATIBLE WITH BUILDING FIRE ALARM SYSTEM.

SMOKE, FIRE AND COMBINATION FIRE/SMOKE DAMPERS SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. UNITS SHALL BE 120V AND ALL 120V WIRING SHALL BE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. SMOKE, FIRE AND COMBINATION FIRE/SMOKE DAMPERS FURNISHED SHALL BE COMPATIBLE WITH BUILDING FIRE ALARM SYSTEM.

FIRE/SMOKE DAMPERS SHALL BE FURNISHED WITH REMOTE COMMAND STATION EQUIPPED WITH TEST SWITCH, THERMAL TEST RESET SWITCH, OPEN/CLOSE PILOT LIGHT INDICATORS. FIRE/SMOKE DAMPERS FURNISHED BY MECHANICAL CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR.

PROVIDE BRANCH SHUT-OFF VALVES ON ALL WATER LINES EXTENDING FROM MAINS.

THE CONTRACTOR SHALL LOCATE AND FURNISH FOR INSTALLATION BY OTHERS, ALL ACCESS PANELS (MINIMUM 12"x12") AS REQUIRED FOR ACCESS TO VALVES, DAMPERS, MOTORS, ETC. AND THE PROPER SERVICING OF EQUIPMENT AND LINES INSTALLED UNDER THIS CONTRACT.

ALL MATERIAL LOCATED IN CEILING PLENUMS SHALL BE SUITABLE FOR RETURN AIR PLENUM.

PIPING

HEATING AND CHILLED WATER PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH THREADED OR WELDED JOINTS

GAS PIPING 4" INCHES AND LARGER SHALL BE SCHEDULE 40 STEEL WITH WELDED JOINTS.

GAS PIPING 3-1/2" INCHES AND SMALLER SHALL BE SCHEDULE 40 STEEL WITH MALLEABLE THREADED FITTINGS.

REFRIGERATION PIPING SHALL BE TYPE ACR COPPER WITH SILVER SOLDERED JOINTS.

GAS PIPING BELOW GRADE SHALL BE WRAPPED WITH PROTECTIVE PIPE COVERING. WHERE LOCATED UNDER BUILDING SLABS GAS PIPE SHALL BE RUN INSIDE A VENTED CARRIER PIPE AND VENTED IN ACCORDANCE WITH LOCAL JURISDICTIONS HAVING AUTHORITY.

FIRE STOP ALL PIPING MATERIALS PASSING THROUGH FIRE RATED STRUCTURES OR FIRE RATED ASSEMBLIES IN ACCORDANCE WITH THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. USE CURRENTLY LISTED U.L. CLASSIFIED PRODUCTS, TESTED BY ASTM E814. USE FOR ALL APPLICABLE PIPE PENETRATIONS THROUGH FIRE RATED FLOORS, WALLS, OR FLOOR CEILING ASSEMBLIES IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS.

DUCTWORK

DUCTWORK SHALL BE GALVANIZED SHEET METAL INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS. INSTALL TURNING VANES IN ALL ELBOWS. ALL SPIN-IN FITTINGS SHALL BE PROVIDED WITH MANUAL VOLUME DAMPERS. ALL EXPOSED ROUND DUCTWORK SHALL BE SPIRAL DUCT.

DUCT SIZES SHOWN ON THE DRAWINGS ARE NET INSIDE FREE AREA.

EQUIPMENT FLEXIBLE DUCTWORK CONNECTION NOT TO EXCEED 5 INCHES IN LENGTH WITH A MAX. 25 FLAME/50 SMOKE INDEX.

FLEXIBLE DUCTWORK TO AIR DEVICES SHALL HAVE A MAXIMUM STRETCHED LENGTH OF 5 FEET AND SUITABLE FOR INSTALLATION IN RETURN AIR PLENUM.

LOW PRESSURE (<2" STATIC PRESSURE) SHEETMETAL DUCTWORK SHALL BE SEALED WITH WELDS, GASKETS, MASTIC ADHESIVES, MASTIC-PLUS-EMBEDED FABRIC, OR TAPES.

MEDIUM PRESSURE (>2" AND <3" STATIC PRESSURE) SHEETMETAL DUCTWORK SHALL BE SEALED WITH SMACNA SEAL CLASS "A" DUCT SEALANT

ALL FLUE GAS DUCTWORK TO BE METALBESTOS TYPE B VENTING OR EQUAL UNLESS OTHERWISE NOTED ON PLANS.

INSULATION

ALL ROUND CONCEALED RIGID SUPPLY AND RETURN DUCTWORK SHALL BE EXTERNALLY WRAPPED IN 1.5" THICK GLASS FIBER INSULATION WITH FIRE RETARDANT VAPOR BARRIER (MINIMUM R-8)

ALL RECTANGULAR SUPPLY AND RETURN DUCTWORK SHALL BE LINED WITH 1.5" THICK 2 POUND DENSITY (MINIMUM R-8) GLASS FIBER ACOUSTIC DUCT LINER.

ALL DUCTWORK EXPOSED TO OUTDOOR AMBIENT TYPE CONDITIONS SHALL BE EXTERNALLY WRAPPED IN 3" RIGID INSULATION (MINIMUM R-12) AND COVERED WITH MINIMUM 24 GAGE SHEET METAL COVER.

ALL HEATING AND CHILLED WATER PIPING INSULATION SHALL HAVE A MINIMUM CONDUCTANCE VALUE BETWEEN 0.21 AND 0.28

CHILLED WATER PIPING 1.5" AND SMALLER SHALL BE INSULATED WITH 1/2 INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET.

CHILLED WATER PIPING 2" AND LARGER SHALL BE INSULATED WITH 1 INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET.
HEATING WATER PIPING 1.5" AND SMALLER SHALL BE INSULATED WITH 1.5" INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET.

HEATING WATER PIPING 1.5" AND LARGER SHALL BE INSULATED WITH 2 INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET.

CONDENSATE DRAIN PIPING SHALL BE INSULATED WITH ½-INCH THICK FIBER GLASS INSULATION WITH AN ALL-SERVICE JACKET.

REFRIGERATION SUCTION LINES SHALL BE INSULATED WITH ½ INCH THICK FOAM PLASTIC CLOSED CELL INSULATION. SEAL ALL JOINTS.

PROVIDE HEAT TRACING AND ASSOCIATED INSULATION FOR ALL WATER AND SANITARY WASTE PIPING SUBJECT TO FREEZING. PROVIDE POWER CONNECTIONS, SPLICE FITTINGS, AND END CAPS FOR A COMPLETE/OPERATIONAL SYSTEM

EXHAUST FANS

FURNISH AND INSTALL CENTRIFUGAL EXHAUST FANS AS SCHEDULED ON THE PLANS. ACCEPTABLE MANUFACTURERS ARE ACME, COOK, CARNES, GREENHECK, OR TWIN CITY.

FURNISH AND INSTALL UNITS COMPLETE WITH ALL OPERATIONAL AND SAFETY CONTROL NECESSARY FOR PROPER OPERATION.

FURNISH AND INSTALL ROOF CURBS AND BACKDRAFT DAMPERS.

PACKAGE GAS/ELECTRIC SINGLE ZONE ROOFTOP UNITS

FURNISH AND INSTALL PACKAGE GAS/ELECTRIC SINGLE ZONE ROOFTOP UNITS AS SCHEDULED ON THE PLANS. ACCEPTABLE MANUFACTURERS ARE TRANE, CARRIER, LENNOX OR YORK.

FURNISH AND INSTALL UNIT COMPLETE WITH ALL OPERATIONAL AND SAFETY CONTROLS FOR SATISFACTORY OPERATION.

FURNISH AND INSTALL FACTORY FURNISHED PROGRAMMABLE THERMOSTAT. MOUNT AT +48-INCHES AFF.

FURNACES AND SPLIT SYSTEM DX COOLING UNITS

FURNISH AND INSTALL NATURAL GAS FURNACE UNITS AS SCHEDULED ON THE PLANS. ACCEPTABLE MANUFACTURERS ARE TRANE, CARRIER, LENNOX OR YORK.

FURNISH AND INSTALL ELECTRIC DIRECT EXPANSION CONDENSING UNITS AND MATCHING INDOOR EVAPORATOR COILS OF THE SAME MANUFACTURER AS THE MATCHING FURNACE UNIT. PROVIDE REFRIGERANT LINE SETS SIZED PER MANUFACTURER'S RECOMMENDATIONS.

FURNISH AND INSTALL UNIT COMPLETE WITH ALL OPERATIONAL AND SAFETY CONTROLS FOR SATISFACTORY OPERATION.

FURNISH AND INSTALL FACTORY FURNISHED PROGRAMMABLE THERMOSTAT. MOUNT AT +45-INCHES AFF.

INSPECT AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO ATTEMPTING TO SET UNITS. PROVIDE 4-INCH THICK CONCRETE PAD FOR CONDENSING UNIT.

PROVIDE SECONDARY DRAIN PAN FOR HORIZONTAL MOUNTED FURNACE/COOLING COIL UNIT. TERMINATE DRAIN TO NEAREST APPROVED RECEPTOR.

GAS UNIT HEATERS

FURNISH AND INSTALL NATURAL GAS FIRED HORIZONTAL UNIT HEATERS AS SCHEDULED ON THE PLANS. UNIT HEATERS SHALL BE AS MANUFACTURED BY TRANE, REZNOR, OR STERLING.

HEATERS SHALL BE AGA CERTIFIED AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

FURNISH AND INSTALL UNITS COMPLETE WITH ALL OPERATIONAL AND SAFETY CONTROLS FOR SATISFACTORY OPERATION.

FURNISH AND INSTALL FACTORY FURNISHED SPACE THERMOSTAT WITH AUTO ON AND HEAT, OFF SELECTION. MOUNT AT +45-INCHES AFF.

MAKE UP AIR UNITS

FURNISH AND INSTALL NATURAL GAS FIRED MAKE UP AIR UNITS AS SCHEDULED ON THE PLANS. MAKE UP AIR UNIT SHALL BE AS MANUFACTURED BY CAPTIVEAIRE, TRANE, REZNOR, OR STERLING.

FURNISH AND INSTALL UNIT COMPLETE WITH ALL OPERATIONAL AND SAFETY CONTROLS FOR SATISFACTORY OPERATION.

FURNISH AND INSTALL FACTORY FURNISHED DISCHARGE OPERATIONAL THERMOSTAT AND OPERABLE 100% OUTDOOR AIR INTAKE DAMPER.

CONTROL SYSTEM

FURNSIH AND INSTALL A COMPLETE SYSTEM OF ELECTRIC/ELECTRONIC CONTROL FOR THE SYSTEMS INSTALLED TO PROVIDE THE FOLLOWING SEQUENCES OF OPERATION.

SYSTEMS SHALL BE INDEPENDENT AND STAND ALONE IN OPERATION AND SEQUENCE.

SINGLE ZONE ROOFTOP UNITS AND FURNACE/CONDENSING UNITS
1. STARTUP
THE UNIT SHALL OPERATE ON A 7 DAY/NIGHT PROGRAMMABLE THERMOSTAT. DURING STARTUP, THE FAN SHALL RUN WITH THE DAMPERS IN THE FULL RECIRCULATION POSITION. PROVIDE OCCUPIED CHANGEOVER SEQUENCE WITH OPTIMUM START FUNCTION. WHEN THE RETURN AIR TEMPERATURE REACHES OCCUPIED SETPOINT (adjustable), THE MINIMUM OUTSIDE AIR DAMPER SHALL OPEN TO THE CONTROLLED MINIMUM OUTDOOR AIR POSITION.
2. SUPPLY FAN CONTROL
THE SUPPLY FAN SPEED SHALL BE CONSTANT, RUN CONTINUOUSLY DURING OCCUPIED MODE AND SET TO THE REQUIRED CFM.
3. SPACE TEMPERATURE CONTROL
PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT WITH DIGITAL DISPLAY OF SPACE TEMPERATURE AND SETPOINT (+/- deg.F. adjustable), WITH OVERIDE FEATURE AND REMOTE SPACE TEMPERATURE SENSOR.
4. MINIMUM OUTSIDE AIR CONTROL
DURING OCCUPIED MODE THE MINIMUM OUTSIDE AIR DAMPER SHALL BE OPEN. PROVIDE MOTORIZED OUTDOOR AIR DAMPER.
5. ECONOMIZER CONTROL
PROVIDE DUAL ENTHALPY ECONOMIZER CONTROL. ECONOMIZER CONTROL SHALL BE ENABLED WHENEVER THE OUTSIDE AIR ENTHALPY IS LOWER THAN THE RETURN AIR ENTHALPY. ENTHALPY SHALL BE CALCULATED FROM SENSORS WHICH ARE TIED TO THE SAME CONTROLLER FOR ACCURACY. DURING ECONOMIZER MODE, THE OUTSIDE AIR DAMPER SHALL MODULATE TO 100% OPEN. THE ECONOMIZER DAMPER SHALL MODULATE OPEN ON A CALL FOR COOLING AND MODULATE CLOSED ON A CALL FOR HEATING. THE RETURN DAMPER SHALL MODULATE INVERSELY WITH THE ECONOMIZER DAMPER.
6. COOLING CONTROL
COOLING SHALL BE CONTROLLED TO MAINTAIN SPACE TEMPERATURE SETPOINT. ON A CALL FOR COOLING, THE HEATING SHALL BE OFF. ON A FURTHER CALL FOR COOLING, DISABLE THE ECONOMIZER MODE AND THE MECHANICAL COOLING SHALL BE STAGED ON.
7. HEATING CONTROL
HEATING SHALL BE CONTROLLED TO MAINTAIN SPACE TEMPERATURE SETPOINT. ON A CALL FOR HEATING, THE MECHANICAL COOLING SHALL BE OFF. ON A FURTHER CALL FOR HEATING, THE ECONOMIZER MODE SHALL BE DISABLED. ON A FURTHER CALL FOR HEATING THE GAS HEATING SHALL BE STAGED ON.
8. SMOKE DETECTOR
WHEN THE SMOKE DETECTOR IS ALARMED, THE SYSTEM SHALL BE ALARMED AND THE AIR HANDLER SHALL FAIL SAFE WITH MANUAL RESET.
9. UNOCCUPIED MODE
DURING THE UNOCCUPIED MODE OF OPERATION, THE RTU SHALL GO INTO NIGHT SETBACK MODE
NIGHT SETBACK/SHUTDOWN
AT NIGHT SETBACK/SHUTDOWN THE RTU SHALL GO TO FAIL SAFE POSITION. FAIL SAFE POSITION IS DEFINED BY THE FOLLOWING: THE SUPPLY FAN IS OFF. THE OUTDOOR AIR INTAKE DAMPER IS CLOSED. THE HEATING IS OFF AND THE MECHANICAL COOLING IS OFF. THE SUPPLY FAN SHALL CYCLE IN CONJUNCTION WITH EITHER THE HEATING OR COOLING SYSTEM TO MAINTAIN A MINIMUM /MAXIMUM SPACE TEMPERATURE DEPENDING ON THE SEASON

ELECTRIC HEAT
LOCAL ELECTRIC UNIT HEATERS SHALL BE CONTROLLED BY LOCAL SPACE THERMOSTATS WITH HEAT OFF, FAN AUTO AND CONTINUOUS SWITCHES OR SELF-CONTAINED UNIT SPACE THERMOSTATS AS APPROPRIATE.

MINI-SPLIT SYSTEMS
UNIT SHALL BE CONTROLLED THROUGH REMOTE THERMOSTAT.

EXHAUST FANS
TOILET AND JANITOR ROOM EXHAUST FANS SHALL BE INTERLOCKED WITH ROOM LIGHT SWITCH.
GENERAL ROOF EXHAUST FANS SHALL BE CONTROLLED BY 7-DAY PROGRAMMABLE TIME-CLOCK WHICH SHALL BE FURNISHED, INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR. WHEN ACTIVATED, EXHAUST FAN MOTOR DAMPER SHALL OPEN AND FAN START.
KITCHEN HOOD EXHAUST FANS SHALL BE INTERLOCKED WITH MAKE-UP AIR UNITS, PROVIDE PACKAGE EXHAUST/MAKE-UP AIR CONTROL PANEL MOUNTED ON WALL IN KITCHEN

GAS UNIT HEATERS
UNIT SHALL BE CONTROLLED BY UNIT MOUNTED ELECTRIC HEATING THERMOSTAT.

MAKEUP AIR UNIT
UNIT SHALL BE CONTROLLED PACKAGE EXHAUST/MAKE-UP AIR CONTOL PANEL MOUNTED ON WALL IN KITCHEN, SUPPLY DUCT MOUNTED DISCHARGE AIR THERMOSTAT SHALL CONTROL THE MODULATING GAS BURNER AND EVAPORATIVE COOLER TO MAINTAIN DISCHARGE TEMPERATURE, SET AT 65 DEGREE F ADJUSTABLE.

COMPLETION:
CLEAN INSULATION COVERING, DUCTS, PIPES, EQUIPMENT AND ACCESSORIES TO RECEIVE PRIME COAT OF PAINT. CLEAN EQUIPMENT RECIVED WITH PRIME COAT TO RECEIVE FINAL COAT.
REPLACE AIR FILTERS IF UNITS WERE OPERATED DURING CONSTRUCTION. CLEAN DUCTS. BLOWERS, AND COILS IF UNITS WERE OPERATED WITHOUT FILTERS DURING CONSTRUCTION.

CONTRACTOR SHALL PROVIDE A GUARANTEE IN WRITTEN FORM STATING THAT ALL WORK UNDER THIS SECTION SHALL BE FREE OF DEFECTIVE WORK, MATERIALS, OR PARTS FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNER'S FINAL ACCEPTANCE AND SHALL REPAIR, REVISE OR REPLACE AT NO COST TO THE OWNER ANY SUCH DEFICITS OCCURRING WITHIN THE GUARANTEE PERIOD.

INSTRUCT OWNER IN OPERATION AND MAINTENANCE OF MECHANICAL SYSTEMS. MINIMUM PARTICIPANTS SHALL INCLUDE MECHANICAL CONTRACTOR AND CONTROLS CONTRACTOR REPRESENTATIVES.

AFTER TESTS AND ADJUSTMENTS HAVE BEEN MADE AND SYSTEM IS PRONOUNCED SATISFACTORY FOR PERMANENT OPERATION, REFINISH DAMAGED FINISH AND LEAVE EVERYTHING IN PROPER WORKING ORDER AND APPEARANCE.

ON COMPLETION OF WORK. REMOVE TOOLS, SCAFFOLDING, DEBRIS. ETC. FROM GROUNDS AND LEAVE PREMISES CLEAN.

OPERATION AND MAINTENANCE MANUALS:
PRIOR TO COMPLTION OF PROJECT, SUBMIT THREE (3) SETS OF MAINTENANCE MANUALS COVERING OPERATION AND MAINTENANCE OF MECHANICAL EQUIPMENT WITH MOVING OR MOVABLE PARTS, INCLUDING PLUMBING SYSTEMS INSTRUCTIONS SHALL BE IN PAMPHLET OR TYPEWRITTEN FORM IN THREE RING BINDERS. INSTRUCTIONS FOR EACH UNIT SHALL BE INDICATED BY SEPARATE TAB.

INCLUDE CERTIFIED TEST AND BALANCE REPORT.

INCLUDE STARTING. STOPPING. LUBRICATION, PREVENTATIVE MAINTENANCE SCHEDULE. AND ADJUSTMENT INFORMATION FOR EACH PIECE OF EQUIPMENT. INCLUDE GUARANTEES AND WARRANTIES OF ALL EQUIPMENT.

INCLUDE AS-BUILT DRAWINGS OF COMPLETED HVAC AND PLUMBING SYSTEMS

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

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33310
6.12.23.
PROFESSIONAL ENGINEER

LIMITED TO HVAC AND PLUMBING
NOT ISSUED FOR CONSTRUCTION
UNLESS SIGNED THROUGH THE SEAL
IN BLUE INK OR DIGITALLY SIGNED BY
PETER F. McDONALD, PE

Sanders Oral and Soult
Family Dentistry
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Aurora, Co

NO.	DATE	DESCRIPTION
	06.12.23	PERMIT/CONSTRUCTION

PROJECT NUMBER: SS101/2023032

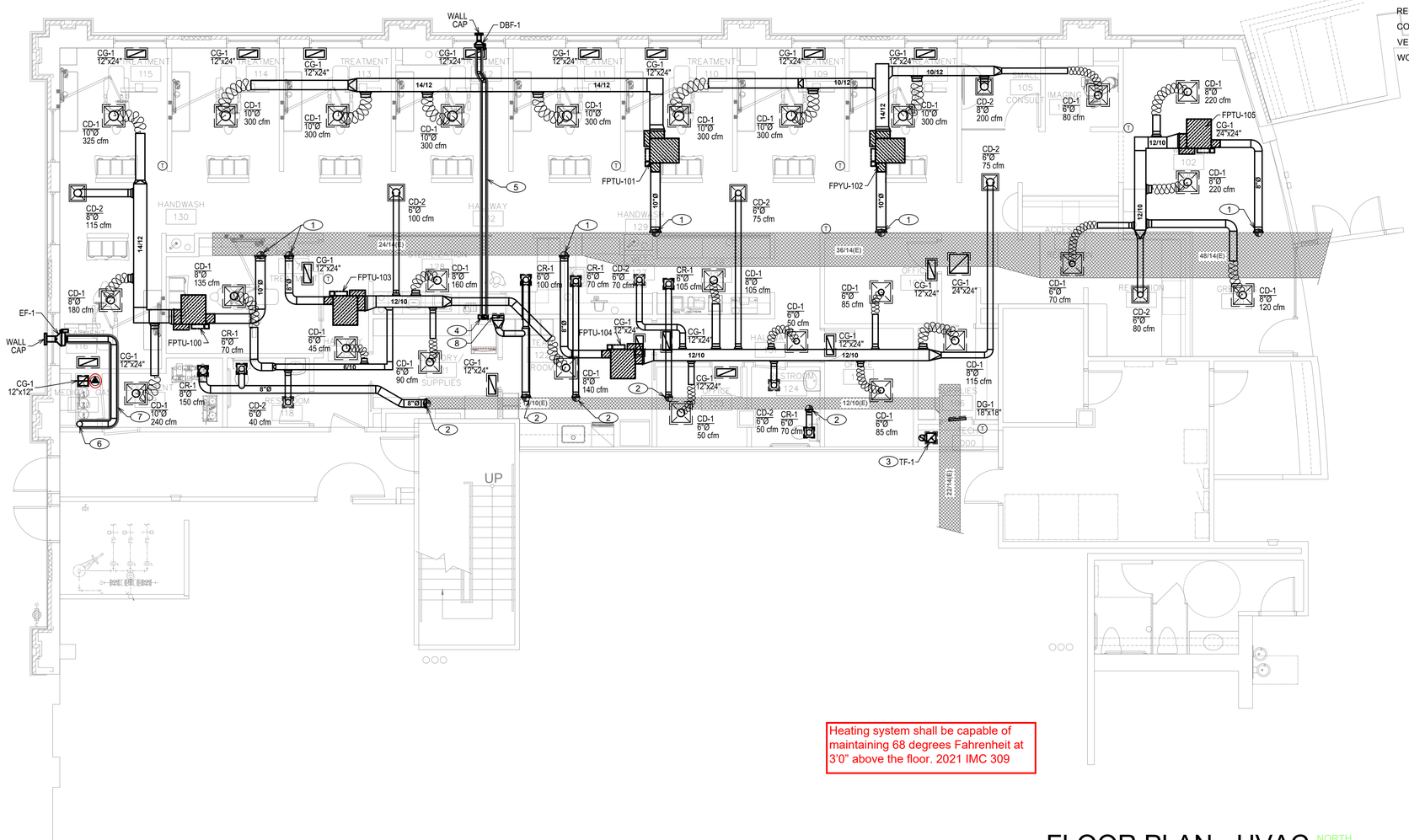
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PFM	PFM

SHEET TITLE: HVAC SPECIFICATIONS

SHEET NUMBER: M-002

Plastic fire sprinkler piping exposed within a plenum shall be used only in wet pipe systems and shall have a maximum: peak optical density of 0.50; average optical density of 0.15; flame spread of 5 feet in accordance with UL 1887. Piping shall be listed and labeled. 2021 IMC 602.2.1.2

Provide proof of a flame spread less than 26 and a smoke development less than 50 for any material used in a plenum. 2021 IMC 602.2.1



Heating system shall be capable of maintaining 68 degrees Fahrenheit at 3'0" above the floor. 2021 IMC 309

SHEET NOTES (X)

1. CONNECT NEW MEDIUM PRESSURE SUPPLY DUCT TO EXISTING MEDIUM PRESSURE SUPPLY DUCT, VERIFY EXACT LOCATION AND SIZE OF EXISTING IN FIELD PRIOR TO START OF WORK
2. CONNECT NEW EXHAUST DUCT TO EXISTING EXHAUST DUCT, VERIFY EXACT LOCATION AND SIZE OF EXISTING IN FIELD PRIOR TO START OF WORK
3. 6"Ø DUCT FROM TRANSFER FAN TO DISCHARGE INTO CEILING PLENUM
4. 4"Ø DRYER EXHAUST DUCT UP FROM DRYER BOX TO CEILING, ROUTE THROUGH CEILING TO SIDEWALL DISCHARGE CAP
5. 4"Ø DRYER EXHAUST DUCT IN CEILING PLENUM TO BE WRAPPED WITH ONE LAYER OF 3M FIREWRAP 615 DUCT WRAP
6. 6"Ø EXHAUST DUCT DOWN IN CORNER OF MED GAS CLOSET TO OPEN INLET AT 6" AFF, STRAP DUCT TO WALL AT 24" O.C.
7. 6"Ø MED GAS EXHAUST DUCT TO BE WRAPPED WITH ONE LAYER OF 3M FIREWRAP 625 DUCT WRAP FROM MED GAS CLOSET CEILING TO DISCHARGE AT WALL
8. 12/3 EXHAUST DOWN IN WALL TO TWO 12"x4" SR-1 EXHAUST REGISTERS AT STERILIZER SHELVES, BALANCE FOR 30 CFM EACH. COORDINATE REGISTER LOCATION WITH DENTAL EQUIPMENT VENDOR, CABINET SUPPLIER AND ARCHITECT PRIOR TO START OF WORK

FLOOR PLAN - HVAC

NORTH

SCALE: 3/16" = 1'-0"

This work must also comply with 2021 IECC

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation. **2021 IBC 105.4**

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Y. Munoz*
Date: *Jun 29, 2023*
2021 INTERNATIONAL CODES & 2020 NEC

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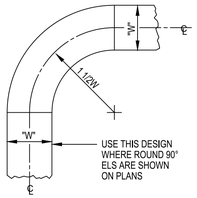
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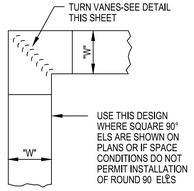
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SHEET TITLE: **FLOOR PLAN - HVAC**

SHEET NUMBER: **M-111**

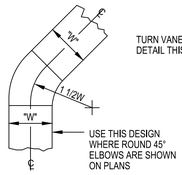


ROUND 90° ELBOW

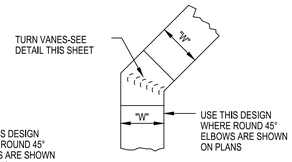


SQUARE 90° ELBOW

CONSTRUCTION OF 90 ELBOWS

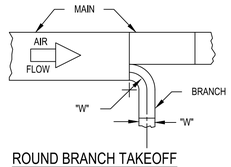


ROUND 45° ELBOW

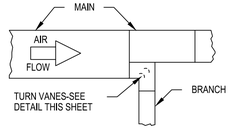


SQUARE 45° ELBOW

CONSTRUCTION OF 45 ELBOWS

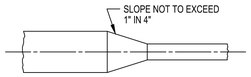


ROUND BRANCH TAKEOFF

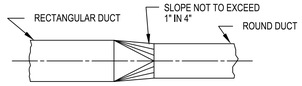


SQUARE BRANCH TAKEOFF

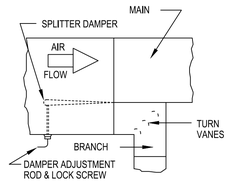
CONSTRUCTION OF BRANCH TAKEOFFS FROM MAIN



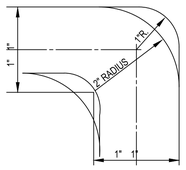
TYPICAL RECTANGULAR TO RECTANGULAR TRANSITION



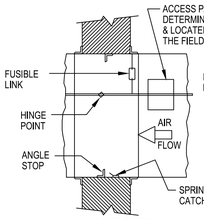
TYPICAL RECTANGULAR TO ROUND TRANSITION



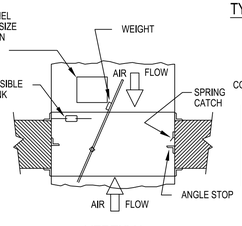
TYPICAL SPLITTER DAMPER



DETAIL OF TURN VANES

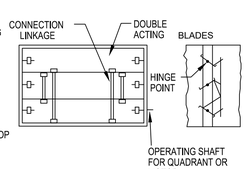


HORIZONTAL



VERTICAL

TYPICAL FIRE DAMPER



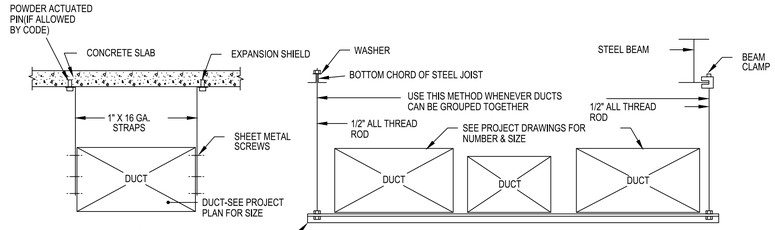
TYPICAL VOLUME DAMPER

INSTALLATION NOTES

1. ALL DUCTS SHALL BE CONSTRUCTED AND ERECTED IN A NEAT AND WORKMANLIKE MANNER.
2. DUCTS SHALL BE CONSTRUCTED OF THE WEIGHTS, GAGES AND MATERIAL SHOWN IN THE SCHEDULE ON THESE DRAWINGS.
3. THE DIMENSION SHOWN FOR ALL DUCTS SHOWN IN PLAN GIVE THE WIDTH FIRST AND THEN THE HEIGHT.
4. DUCT RISERS SHOULD BE SUPPORTED BY ANGLES AT EVERY FLOOR.
5. AIR TURN SHALL BE INSTALLED IN ALL ABRUPT ELBOWS TO PREVENT TURBULENCE.
6. DUCTS SHALL BE SECURELY ATTACHED TO THE BUILDING CONSTRUCTION IN AN APPROVED MANNER.
7. DIVERGING TRANSITION PIECES SHALL BE MADE AS GRADUAL AS POSSIBLE.
8. INSTALL FIRE DAMPERS IN ACCORDANCE WITH UL 555.
9. ACCESS PANELS SHOULD BE PLACED BEFORE AND/OR AFTER EQUIPMENT INSTALLED IN THE DUCT.
10. DUCT AREA SHOULD NOT BE DECREASED MORE THAN 10 PERCENT WHEN OBSTRUCTIONS CANNOT BE AVOIDED, AND THEN A STREAMLINED FITTING SHOULD BE USED.
11. FLEXIBLE FABRIC CONNECTIONS (OR EQUAL) SHOULD BE USED ON BOTH INLETS AND OUTLETS OF ALL FANS AND AIR HANDLING UNITS.
12. JOINTS AND SEAMS OF SUPPLY DUCTS SHALL BE FASTENED SECURELY AND MADE AIR TIGHT.

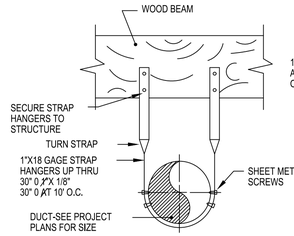
DETAILS OF THE LOW VELOCITY DUCT LAYOUT

NO SCALE

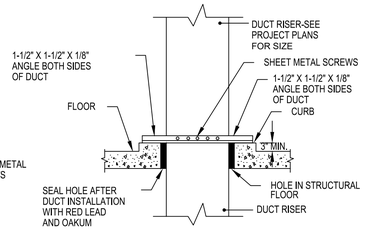


SINGLE RECTANGULAR DUCT

MULTIPLE DUCT RUNS ON TRAPEZE HANGERS



ROUND DUCT

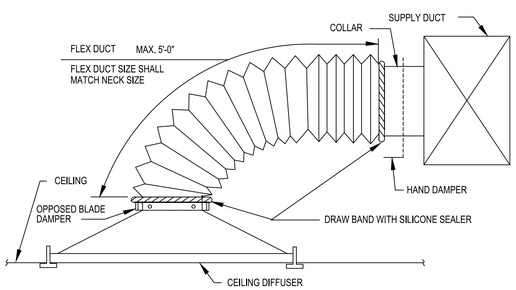


RISER SUPPORT

HANGER AND SUPPORT DETAILS FOR LOW PRESSURE DUCTWORK (UP THRU 2" WG)

(VARIOUS METHODS OF ATTACHMENT)

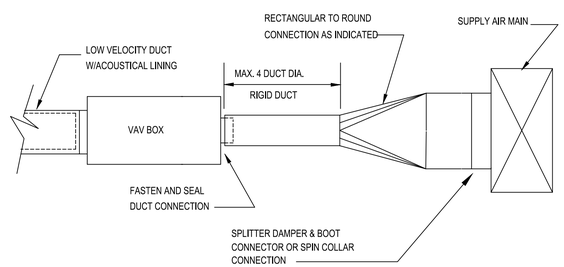
NOT TO SCALE



TYPICAL DIFFUSER CONNECTION

(SIDE OF DUCT CONNECTION)

NOT TO SCALE



TERMINAL BOX CONNECTION

NOT TO SCALE

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Y. Munoz
Date: Jun 29, 2023
2021 INTERNATIONAL CODES & 2020 NEC

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80516
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COLORADO LICENSED 33310 6.12.23. PROFESSIONAL ENGINEER

LIMITED TO HVAC AND PLUMBING
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UNLESS SIGNED THROUGH THE SEAL
IN BLUE INK OR DIGITALLY SIGNED BY
PETER F. McDONALD, PE

Sanders and Soult Family Dentistry
Tenant Remodel
1444 S. Potomac, Suite 100
Aurora, Co

NO.	DATE	DESCRIPTION
	06.12.23	PERMIT/CONSTRUCTION

PROJECT NUMBER: SS101/2023032

DRAWN BY: PFM | CHECKED BY: PFM

SHEET TITLE: HVAC DETAILS

SHEET NUMBER: M-501

VARIABLE AIR VOLUME TERMINAL UNIT SCHEDULE

SYMBOL	TYPE	MFR	MODEL	INLET SIZE	COOLING		MIN OPERT INLET SP	HEATING FAN				HEATING COIL DATA							RADIATED NC @ 1.5" SP	REMARKS
					MAX CFM	MIN CFM		CFM	ESP	MOTOR		EAT F	LAT F	MBH @ 5300'	KW	WATER PD FT WC	CONTOL STEPS	ELEC		
										HP	ELEC									
FPTU-100	PARALLEL FAN POWERED VAV	TRANE	VPEF	10	960	300	1.0	575	0.3	1/3	277v-1Ø	62.5	95.0	20.1	6.0	---	SCR	277v-1Ø	33	1
FPTU-101	PARALLEL FAN POWERED VAV	TRANE	VPEF	10	1,200	360	1.0	715	0.3	1/3	277v-1Ø	62.5	95.0	25.1	7.5	---	SCR	277v-1Ø	33	1
FPTU-102	PARALLEL FAN POWERED VAV	TRANE	VPEF	10	1,180	350	1.0	630	0.3	1/3	277v-1Ø	62.5	95.0	22.2	6.5	---	SCR	277v-1Ø	33	1
FPTU-103	PARALLEL FAN POWERED VAV	TRANE	VPEF	8	610	180	1.0	360	0.3	1/3	277v-1Ø	62.5	95.0	12.6	4.0	---	SCR	277v-1Ø	27	1
FPTU-104	PARALLEL FAN POWERED VAV	TRANE	VPEF	8	695	195	1.0	385	0.3	1/3	277v-1Ø	62.5	95.0	13.5	4.0	---	SCR	277v-1Ø	27	1
FPTU-105	PARALLEL FAN POWERED VAV	TRANE	VPEF	8	710	215	1.0	425	0.3	1/3	277v-1Ø	62.5	95.0	14.9	4.5	---	SCR	277v-1Ø	27	1

1. PROVIDE DDC DAMPER/HEATER CONTROL COMPATIBLE WITH EXISTING BUILDING ENERGY MANAGEMENT SYSTEM

FAN SCHEDULE

SYMBOL	FAN TYPE	SERVICE	MFR	MODEL	WHEEL DIA IN	CFM @ 5300'	SP IN WC @ SL	APPROX RPM	TIP SPEED FPM	SONES	MIN HP	ELEC	DRIVE TYPE	DAMPER TYPE	APPROX ROOF/WALL OPENING	REMARKS
EF-1	IN-LINE TUBULAR	MED GAS	FANTECH	FG-4	---	50	0.5	3,000	---	---	30 WATT	120V-1Ø	DIRECT	NONE	7"Ø	1,4
TF-1	CEILING CABINET	TRANSFER	ACME	VQ150	---	100	0.625	710	---	3.1	100 WATTS	120V-1Ø	DIRECT	BACKDRAFT	---	1,2
DBF-1	IN-LINE TUBULAR	DRYER	FANTECH	DEDPV-705	---	175	0.6	2,559	---	---	72 WATT	120V-1Ø	DIRECT	NONE	5"Ø	6

1. PROVIDE SOLID STATE SPEED CONTROLLER FOR FAN BALANCING
2. FAN TO BE CONTROLLED WITH LINE VOLTAGE THERMOSTAT
3. FAN TO BE INTERLOCKED WITH ROOM LIGHT SWITCH
4. FAN TO RUN CONTINUEOSLY
5. FAN TO BE CONTROLLED WITH 7-DAY PROGRAMMABLE TIMECLOCK LOCATED IN JANITOR/EQUIPMENT ROOM
6. PROVIDE WITH HS4W EXTERNAL WALL LOUVER, DBLT4W SECONDARY LINT TRAP, INTEGRAL POSITIVE PRESSURE SENSING SWITCH FOR UNIT CONTROL
7. PROVIDE MODEL 611CM FLAT ROOF ROOF CAP
8. PROVIDE MODEL 641 WALL CAP

AIR DEVICE SCHEDULE

SYMBOL	TYPE	MFR	MODEL	FRAME	MATERIAL	FINISH	DAMPER TYPE	ACCESSORIES	REMARKS
CD-1	CEILING DIFFUSER	TITUS	OMNI	LAY-IN	STEEL	OFF-WHITE ENAMEL	OPPOSED BLADE	---	---
CD-2	CEILING DIFFUSER	TITUS	OMNI	FLANGE	STEEL	OFF-WHITE ENAMEL	OPPOSED BLADE	---	---
CR-1	CEILING REGISTER	TITUS	50F	FLANGE	ALUMINUM	OFF-WHITE ENAMEL	OPPOSED BLADE	---	---
CG-1	CEILING GRILLE	TITUS	50F	LAY-IN	ALUMINUM	OFF-WHITE ENAMEL	NONE	---	---
CG-2	CEILING GRILLE	TITUS	50F	FLANGE	ALUMINUM	OFF-WHITE ENAMEL	NONE	---	---
SR-1	SIDEWALL REGISTER	TITUS	355RL	FLANGE	STEEL	OFF-WHITE ENAMEL	OPPOSED BLADE	---	---
DG-1	DOOR GRILLE	TITUS	CT-700L	FLANGE	STEEL	OFF-WHITE ENAMEL	NONE	---	---

VENTILATION REQUIREMENTS

System Tag	Space	Floor Area	Occupancy Classification	IMC Section 403/ASHRAE 62.1 Outside Air					
				CFM/SF	CFM/Person	Ocup/1000SF	CFM/Rm	Vent Effct	OA Required
	115 Treatment	130	Medical Procedure	0.00	15.0	20	0	0.80	49
	116 Treatment	130	Medical Procedure	0.00	15.0	20	0	0.80	49
	119 Equpment	75	Medical Procedure	0.00	15.0	20	0	0.80	28
	132N Corridor	250	Corridor	0.06	0.0	0	0	0.80	19
TU-100		585							144
	111 Treatment	130	Medical Procedure	0.00	15.0	20	0	0.80	49
	112 Treatment	130	Medical Procedure	0.00	15.0	20	0	0.80	49
	113 Treatment	130	Medical Procedure	0.00	15.0	20	0	0.80	49
	114 Treatment	130	Medical Procedure	0.00	15.0	20	0	0.80	49
TU-101		520					0		195
	104 Imaging	56	Office	0.06	5.0	5	0	0.80	6
	105 Sm Consult	60	Office	0.06	5.0	5	0	0.80	6
	108 Treatment	130	Medical Procedure	0.00	15.0	20	0	0.80	49
	109 Treatment	130	Medical Procedure	0.00	15.0	20	0	0.80	49
	110 Treatment	130	Medical Procedure	0.00	15.0	20	0	0.80	49
TU-102		506							159
	117 Private Treatment	147	Medical Procedure	0.00	15.0	20	0	0.80	55
	133 Hallway	68	Corridor	0.06	0.0	0	0	0.80	5
	128 Sterilization	119	Office	0.06	5.0	5	0	0.80	13
	121 Laundry	110	Office	0.06	5.0	5	0	0.80	12
	122 Team	154	Office	0.06	5.0	5	0	0.80	16
TU-103		654							101
	127 Wet Lab	56	Office	0.06	5.0	5	0	0.80	6
	126 Lab	70	Office	0.06	5.0	5	0	0.80	7
	132S Corridor	220	Corridor	0.06	0.0	0	0	0.80	17
	106 Supplies	83	Storage	0.12	0.0	0	0	0.80	12
	123 Office	60	Office	0.06	5.0	5	0	0.80	6
	125 Office	94	Office	0.06	5.0	5	0	0.80	10
	107 Office	94	Office	0.06	5.0	5	0	0.80	10
TU-104		731							68
	100 Greeting	99	Office	0.06	5.0	5	0	0.80	11
	101 Reception	99	Office	0.06	5.0	5	0	0.80	11
	102 Waiting Room	221	Reception	0.06	5.0	30	0	0.80	58
	103 Acc Reception	90	Office	0.06	5.0	5	0	0.80	10
TU-105		509							89

City of Aurora Building Division
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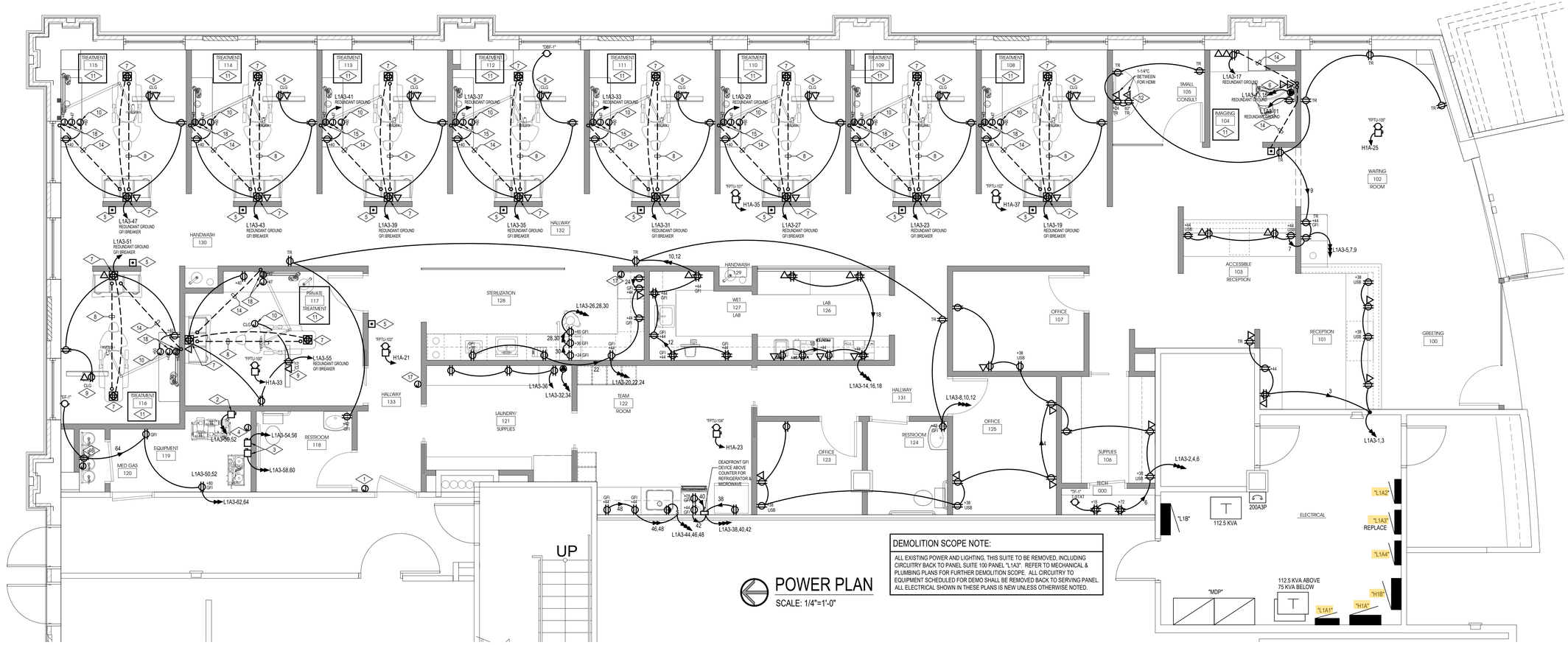
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NO.	DATE	DESCRIPTION
	06.12.23	PERMIT/CONSTRUCTION

PROJECT NUMBER: SS101/2023032
DRAWN BY: PFM
CHECKED BY: PFM
SHEET TITLE: **HVAC SCHEDULES**
SHEET NUMBER: **M-601**



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

DEMOLITION SCOPE NOTE:

ALL EXISTING POWER AND LIGHTING, THIS SUITE TO BE REMOVED, INCLUDING CIRCUITRY BACK TO PANEL SUITE 100 PANEL "L1A3". REFER TO MECHANICAL & PLUMBING PLANS FOR FURTHER DEMOLITION SCOPE. ALL CIRCUITRY TO EQUIPMENT SCHEDULED FOR DEMO SHALL BE REMOVED BACK TO SERVING PANEL. ALL ELECTRICAL SHOWN IN THESE PLANS IS NEW UNLESS OTHERWISE NOTED.

GENERAL NOTES:

1. REFER TO THE ARCHITECTURAL PLANS FOR NOTES, DETAILS, MOUNTING HEIGHTS, MILLWORK CIRCUITRY ROUTES, ETC. FOR ADDITIONAL WORK AND CLARIFICATIONS, PRIOR TO ROUGH-IN. ALL WORK SHALL BE IN ACCORDANCE TO BUILDING MANAGEMENT REQUIREMENTS FOR CONSTRUCTION AND WITH ADJACENT OCCUPIED TENANTS.
2. FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID AND ALLOW FOR THESE CONDITIONS. REPORT CONFLICTS AND DISCREPANCIES TO ENGINEER. PROVIDE ELECTRICAL INSTALLATIONS AND MATERIALS TO MATCH BASE BUILDING. COORDINATE ALL REQUIREMENTS WITH OWNER / LANDLORD.
3. REFER TO THE MECHANICAL PLANS FOR LOCATIONS, NOTES FOR CONTROLS AND ANY ADDITIONAL WORK. PROVIDE POWER SUPPLIES TO DAMPERS, ETC. CONNECT LINE VOLTAGE WALL CONTROLS AND DUCT DETECTORS PER MECH NOTES.
4. E.C. MUST VERIFY LOCATIONS OF ALL POWER AND DATA DEVICES WITH TENANT PRIOR TO ROUGH-IN, SUBJECT TO RELOCATION BY TENANT
5. PROVIDE GFI 120 VOLT OUTLETS WITHIN 6' OF WATER SERVICE AND/OR SINKS AND AS PER NEC.
6. COORDINATE ALL POWER SHUT-DOWNS WITH BUILDING MANAGEMENT.
7. WIRING AND MATERIALS / METHODS FOR ALL RECEPTACLES AND FIXED ELECTRICAL EQUIPMENT IN PATIENT CARE AREAS SHALL COMPLY WITH NEC 517. 13 (A) AND (B) FOR REDUNDANT GROUNDING.
8. ALL RECEPTACLES IN PATIENT CARE AREAS SHALL BE HOSPITAL GRADE.
9. PROVIDE NEW LIGHT FIXTURES AS SPECIFIED AND SUPPORT LAY IN FIXTURES FROM STRUCTURE PER I.B.C. PROVIDE ICCC COMPLIANT CONTROLS AS INDICATED / NOTED. VERIFY ALL LIGHTING CONTROL SPECIFICATIONS WITH BUILDING MANAGEMENT.
10. PROVIDE NEW EXIT AND EGRESS LIGHTS PER THE NEW BUILDING STANDARDS.
11. AUDIO / VIDEO BOXES TO BE 2-GANG WITH SINGLE GANG MUD RING AND 1-1/4" C. W/ PULLSTRING FOR L.V. CABLING BY OTHERS. DEVICE AND COVERPLATE BY SYSTEM INSTALLER.
12. E.C. TO PROVIDE LABEL(S) ON ALL DEVICE COVERPLATES INDICATING THE PANEL AND BRANCH CIRCUIT NUMBER FROM WHICH THEY ARE FED.
13. E.C. SHALL PROVIDE UPDATED PANEL SCHEDULE(S) INDICATING LOADS SERVED AND SPARE CIRCUITS. TURN SPARE BREAKERS TO THE "OFF" POSITION. NO SPARE CIRCUITS ALLOWED IN WALLS OR CEILING SPACES.
14. THE AVAILABLE FAULT CURRENT AT THE SERVICE EQUIPMENT SHALL BE FIELD MARKED PER CALCULATION AS " _A " AND DATED " _ - _ - _ " PER NEC 110.24(A)
15. ENSURE CIRCUIT CONTINUITY FOR ALL EXISTING CIRCUITS AFFECTED BY DEMOLITION THIS SCOPE.
16. CONTRACTOR MAY RELOCATE / RE-USE DEVICES REMOVED DURING DEMOTION AS LONG AS DEVICE IS NOT DAMAGED.
17. FIRE ALARM AND DETECTION DESIGN IS EXCLUDED FROM THESE DRAWINGS AND IS CONSIDERED AS SHOP DRAWINGS BY THE BUILDING'S SYSTEM SUPPLIER / TECHNICIAN. NOTE THAT ANY EXISTING DEVICES IN THIS SPACE WILL REQUIRE DEMO / RELOCATION. REFER TO MECHANICAL DRAWINGS FOR ANY DUCT DETECTORS NOTED. COORDINATE THESE DUCT DETECTORS (SUPPLIED BY MECH., INSTALLED BY E.C.) FOR SYSTEM COMPATIBILITY. ENSURE TEST STATIONS AND REMOTE LIGHTS AS REQUIRED.

VOLTAGE DROP NOTE:

ELECTRICAL CONTRACTOR SHALL UPSIZE ALL 120V BRANCH CIRCUITS EXCEEDING 75 LINEAR FEET OF RUN LENGTH TO #10, CU TO ACCOMMODATE VOLTAGE DROP.

POWER DETAIL NOTES:

1. AIR / VAC / WATER CONTROL PANEL J-BOX (+54" - VERIFY) WITH LOW VOLTAGE CABLING TO AIR/VAC LOCATION. VERIFY WIRING REQUIREMENTS AND LOCATION / HEIGHT WITH DENTAL EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
2. 220V., 1-PHASE, 30A DISCONNECT (20A FUSED) POSSIBLY VIA BUCK-BOOST TRANSFORMER FOR AIR COMPRESSOR E.C. SHALL PROVIDE APPROPRIATE BUCK-BOOST TRANSFORMER IF NEEDED. COORDINATE AND VERIFY FINAL CONNECTION SIZE, LOCATION AND REQUIREMENTS WITH DENTAL EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
3. 220V., 1-PHASE, 30A DISCONNECTS (20A FUSED) POSSIBLY VIA BUCK-BOOST TRANSFORMER FOR VACUUM PUMP. E.C. SHALL PROVIDE APPROPRIATE BUCK-BOOST TRANSFORMER IF NEEDED. COORDINATE AND VERIFY FINAL CONNECTION SIZE, LOCATION AND REQUIREMENTS WITH DENTAL EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
4. +60", PROVIDE GFI DUPLEX AND SINGLE GANG J-BOX WITH LOW VOLTAGE CABLING TO REMOTE PANEL INDICATED IN KEYNOTE 1. VERIFY WIRING AND LOCATION REQUIREMENTS WITH DENTAL EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
5. J-BOX, FOR X-RAY REMOTE EXPOSURE BUTTON. PROVIDE (1) 3/4"C WITH PULLSTRING TO ABOVE CEILING FOR CONTROLS WIRING. VERIFY EXACT LOCATION AND REQUIREMENTS WITH DENTAL EQUIPMENT SUPPLIER / ARCHITECT PRIOR TO WORK.
6. FOR PANORAMIC X-RAY PROVIDE (1) 20A, 208V SPECIAL OUTLET, (1) DEDICATED 120V DUPLEX RECEPTACLE, (2) ETHERNET / DATA OUTLETS. VERIFY EXACT LOCATIONS, HEIGHTS AND SPECIAL GROUNDING PER MANUFACTURER REQUIREMENTS.
7. QUADRUPLEX RECEPTACLE, SURFACE-MOUNTED FOR DENTAL CHAIR OR UTILITY CENTER. VERIFY EXACT LOCATION, SAW-CUTTING ROUTE, AND ALL REQUIREMENTS WITH DENTAL EQUIPMENT CONSULTANT PRIOR TO WORK. ENSURE ALL CONNECTIONS, GROUNDING, AND DEVICE ORIENTATION ARE AS PER D.E. REQUIREMENTS. ENSURE DEVICE IS GFCI PROTECTED.
8. 2" CONDUIT WITH PULLSTRING ROUTED UNDER FLOOR FOR LOW-VOLTAGE CABLING. STUB UP AT TOE OF CHAIR, AT UTILITY CENTER AND WITHIN (OR ABOVE) WALL AS INDICATED BY DENTAL EQUIPMENT DRAWINGS. REFER TO DENTAL EQUIPMENT DETAIL 44. COORDINATE FINAL STUB-LOCATIONS WITH ARCHITECT AND DENTAL EQUIPMENT CONSULTANT PRIOR TO WORK OR SAW-CUTTING.
9. 120V. CONNECTION FOR CEILING OR WALL-MOUNTED PATIENT MONITOR. VERIFY EXACT LOCATION, CONNECTION, AND BRACING REQUIREMENTS WITH ARCHITECT PRIOR TO ROUGH-IN.
10. 120V. CONNECTION FOR WALL OR CEILING-MOUNTED DENTAL LIGHT. VERIFY EXACT LOCATION, CONNECTION, AND BRACING REQUIREMENTS PRIOR TO ROUGH-IN.
11. ALL CIRCUITRY THIS ROOM SHALL COMPLY WITH NEC 517. 13 FOR REDUNDANT GROUNDING. REFER TO GENERAL NOTE 7 THIS SHEET FOR ADDITIONAL INFORMATION.
12. VERIFY LOCATION, HEIGHT, BRACING, CONDUIT AND A/V CONNECTION REQUIREMENTSTO TELEVISION WITH I.T. / A.V. CONSULTANT AND ARCHITECT PRIOR TO ROUGH-IN.
13. RECEPTACLE AND/OR DATA DEVICE IN MILLWORK. VERIFY CONNECTION REQUIREMENTS, ORIENTATION, DEVICE TYPE AND FINAL LOCATION WITH ARCH / TENANT PRIOR TO WORK.
14. 1" CONDUIT WITH PULLSTRING ROUTED OVERHEAD FOR LOW-VOLTAGE CABLING. STUB AT AS INDICATED BY DENTAL EQUIPMENT DRAWINGS. REFER TO DENTAL EQUIPMENT DETAIL 4D. COORDINATE FINAL STUB-LOCATIONS WITH ARCHITECT AND DENTAL EQUIPMENT CONSULTANT PRIOR TO WORK.
15. 120V. CONNECTION AND LOW VOLTAGE BOX FOR WALL-MOUNTED INTRAORAL XRAY. COORDINATE ALL LOW VOLTAGE / CONTROL WIRING WITH DENTAL EQUIPMENT. REFER TO D.E. DETAIL 9. 9A, 9B. VERIFY EXACT LOCATION, CONNECTION, AND BRACING REQUIREMENTS PRIOR TO ROUGH-IN.
16. MED GAS MANIFOLD. PROVIDE DEDICATED DUPLEX AND J-BOX WITH LOW-VOLTAGE CABLING TO MED GAS ALARM PANEL DENOTED BY DETAIL NOTE 16. ADDITIONAL LOW VOLTAGE CABLING TO ZONE VALVE FROM THIS LOCATION MAY BE REQUIRED. VERIFY WIRING AND LOCATION REQUIREMENTS WITH DENTAL EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
17. J-BOX AT +60" FOR MED GAS ALARM OR EMERGENCY SHUT-OFF WITH LOW-VOLTAGE CABLING TO MED GAS MANIFOLD DENOTED BY DETAIL NOTE 15. VERIFY LOCATION AND MOUNTING HEIGHT. VERIFY WIRING AND REQUIREMENTS WITH DENTAL EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
18. PROVIDE EMPTY J-BOXES AT HEIGHTS INDICATED WITH 3/4"C AND PULLSTRINGS TO ABOVE ACCESSIBLE CEILING.

Install electrical connections per 2020 NEC 110.14, Identify disconnects per 2020 NEC 110.22 and provide working space around Electrical equipment per 2020 NEC 110.26

Provide a Grounding Electrode System bonded To the service equipment enclosure, grounded Conductors, and grounded electrode conductors Per 2020 NEC 250.50 and 250.104

Service Equipment shall be permanently And legibly marked to show the available Fault current and date. 2020 NEC 110.24(A)(B)

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: nmartine
Date: Jun 30, 2023
2021 INTERNATIONAL CODES & 2020 NEC

PANEL "H1A"

HUTCHISON-PAPESH ENGINEERING CORPORATION
CONSULTING ELECTRICAL ENGINEERS
V. 303.973.9779 F. 303.973.9759

480 / 277 VOLTS, 3 PHASE, 4 WIRE
400 AMPS MLO, 60 POLE SINGLE SECTION
NEW, SURFACE
GE AIC: 35,000
NOTES: 400 AMPS MAX. THIS PANEL

		CIRCUIT DESCRIPTION	V A	CIRCUIT BKR	PHASE A	PHASE B	PHASE C	CIRCUIT BKR	V A	CIRCUIT DESCRIPTION	
★★	1	SPARE		20	○			20	1990	CORR, BR LTS	2
★★	3	SPARE		20		○		20	2620	SHELL LTS	4
★★	5	SPARE		20			○	20	390	EXIT SCONCES	6
	7	SPARE		20	○			20	1200	PARKING LIGHTING	8
	9	SPARE		20		○		20	1200	PARKING LIGHTING	10
	11	SPARE		20			○	20	1200	PARKING LIGHTING	12
	13	SPARE		20	○			20	850	LANDSCAPE LTG	14
	15	LIGHTING	1544	20		○		20	1260	LTG CONTACTOR	16
	17	LIGHTING 160	1606	20			○	20	1590	CORRIDOR LTS	18
	19	ITU		30	○			30	1406	170 LIGHTS	20
★	21	"PTU-103" (#10, CU)	4864	30		○		20	890	170 LIGHTS	22
★	23	"PTU-104" (#10, CU)	4864	**30**	○			20		SPARE	24
★	25	"PTU-105" (#10, CU)	5364	**30**		○		20		SPARE	26
	27	BOOSTER PUMPS	3000	20/3	○			20		SPARE	28
	29		3000	/		○		20		SPARE	30
	31		3000	/			○	20		SPARE	32
★	33	"FTPTU-100" (#8, CU)	6864	**40**	○			40/3	7000	"FTU-3"	34
★	35	"FTPU-101" (#8, CU)	8364	**40**		○		/	7000		36
★	37	"FTPU-102" (#8, CU)	7364	**40**			○	/	7000		38
	39	"FTU-1"	7000	40/3	○			40/3	7000	"FTU-6"	40
	41		7000	/		○		/	7000		42
	43		7000	/			○	/	7000		44
	45	"FTU-2"	7000	40/3	○			40/3	7000	"FTU-4"	46
	47		7000	/		○		/	7000		48
	49		7000	/			○	/	7000		50
	51	"FTU-5"	7000	40/3	○			50/3	8500	"FTU-7"	52
	53		7000	/		○		/	8500		54
	55		7000	/			○	/	8500		56
	57	112.5 KVA XFMR "L1A1"	30033	175/3	○					NOT BUSSED	58
	59		30033	/		○					60
	61		30033	/			○				62

PHASE A	PHASE B	PHASE C
101.7	102.8	101.5

	CONN. KVA	DEMAND %	DEMAND KVA
LIGHTING	17.7	125	22.2
RECEPTACLES < 10 KVA	0.0	100	0.0
RECEPTACLES > 10 KVA	0.0	50	0.0
LARGEST MOTOR	9.0	125	11.3
MOTORS	0.0	100	0.0
HEAT	189.2	100	189.2
MISCELLANEOUS	0.0	100	0.0
MISC. DED CIRCUITS	0.0	100	0.0
PANEL "L1A1" VIA 112.5 KVA (MAX)	90.1	100	90.1

TOTAL KVA: 312.7 **TOTAL AMPS: 376.6**

★ NEW BREAKER TO REPLACE EXISTING MADE AVAILABLE THROUGH DEMO.
★★ NEW SPARE MADE AVAILABLE THROUGH DEMO.

PANEL "L1A1"

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208 / 120 VOLTS, 3 PHASE, 4 WIRE
400 AMPS 400A3P M.C.B.
EXISTING U.O.N. (BOLD), SURFACE
GE AIC: 10,000
NOTES: MAX 112.5 KVA THIS PANEL

	CIRCUIT DESCRIPTION	V A	CIRCUIT BKR	PHASE A	PHASE B	PHASE C	CIRCUIT BKR	V A	CIRCUIT DESCRIPTION	
1	EAST DOOR	502	20	○			20/3	750	"CUH-2"	2
3	IRRIGATION	180	20		○		/	750		4
5	EAST VESTIBULE	540	20			○	/	720		6
7	WEST DOOR	502	20	○			20	200	BAS SYSTEM	8
9	WEST VESTIBULE	1080	20		○		20	200	FACP	10
11	EF-3	545	20			○	20	360	ELEV LOBBY RCPTS	12
13	IT ROOM	1080	20	○			20 GFI	720	RECEPTACLES	14
15	MAIL ROOM	720	20		○		20 GFI	500	E. CANOPY HEAT TRACE	16
17	RR / EWC	540	20			○	20	100	P/S FOAMPERS	18
19	WEST DOOR	505	20	○			100/3	8710	PANEL "L1A2"	20
21	EAST SHELL RCPTS	720	20		○		/	8710	(PER RECORD PLANS)	22
23	SOUTH CORRIDOR RCPTS	1440	20			○	/	8710		24
25	PANEL "L1A3"	11300	100/3	○			20	720	RECEPTACLES	26
27		11300	/		○		20	360	ELEV PIT RCPTS	28
29		11300	/			○	20	360	ELEV PIT RCPTS	30
31	"UH-1"	750	20/2	○			20	180	MECH RM RCPT	32
33		750	/		○		20/2	750	CUH-3	34
35	CUH-1	3500	40/3	○			/	750		36
37		3500	/		○		20/2	750	CUH-4	38
39		3500	/			○	/	750		40
41	RECEPTACLES	900	20			○	20	720	RECEPTACLES	42

PHASE A	PHASE B	PHASE C
30.2	30.3	30.5

	CONN. KVA	DEMAND %	DEMAND KVA
LIGHTING	0.0	125	0.0
RECEPTACLE LOADS < 10 KVA	10.0	100	10.0
RECEPTACLE LOADS > 10 KVA	1.7	50	0.8
LARGEST MOTOR LOAD	0.0	125	0.0
MOTORS	0.0	100	0.0
HEAT	17.7	100	17.7
MISC DED CCTS	1.5	100	1.5
PANEL "L1A2"	26.1	100	26.1
PANEL "L1A3"	33.9	100	33.9

TOTAL KVA: 90.1 **TOTAL AMPS: 250.1**

Every circuit and circuit modification shall be legibly Identified as to it's clear, evident and specific purpose or use. The identification shall include an approved degree of detail that allows each circuit to be distinguished from all others. 2020 NEC 408.4

PANEL "L1A3"

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208 / 120 VOLTS, 3 PHASE, 4 WIRE
100 AMPS MLO, 72 POLE SINGLE SECTION
NEW, SURFACE
GE AIC: 10,000
NOTES: 100 AMPS MAX. THIS PANEL

	CIRCUIT DESCRIPTION	V A	CIRCUIT BKR	PHASE A	PHASE B	PHASE C	CIRCUIT BKR	V A	CIRCUIT DESCRIPTION	
1	RECEPTION FRONT RCPTS	540	20	○			20	1260	SUPPLIES, OFF RCPTS	2
3	RECEPTION BACK RCPTS	720	20		○		20	1080	OFF RCPTS	4
5	BEV BAR RCPTS	360	20			○	20	720	IT RCPTS	6
7	ACC. RECEPTION RCPTS	540	20	○			20	900	HALL, RR RCPTS	8
9	WAITING, CONDULT RCPTS	1080	20		○		20	900	WET LAB N, E RCPTS	10
11	PANO 120V (VFY GROUND)	180	20			○	20	720	WET LAB WEST RCPTS	12
13	PANO 208V (VFY GROUND)	675	20/2	○			20	540	LAB SW RCPTS	14
15		675	/		○		20	360	LAB NW RCPTS	16
17	PANO CPU	180	20			○	20	720	LAB EAST RCPTS	18
19	SPARE	1260	20 GFI	○			20	540	STERIL S, SW RCPTS	20
21	SPARE		20		○		20	360	STERIL NW RCPTS	22
23	TREAT 109 RCPTS	1260	20 GFI			○	20	410	STERIL UC REF	24
25	SPARE		20	○			20	606	UPPER STERIL RCPT	26
27	TREAT 110 RCPTS	1260	20 GFI		○		20	606	MIDDLE STERIL RCPT	28
29	TREAT 110 XRAY	606	20			○	20	606	LOWER STERIL RCPT	30
31	TREAT 111 RCPTS	1260	20 GFI	○			30/2	2500	DRYER	32
33	TREAT 111 XRAY	606	20		○		/	2500	(#10, CU)	34
35	TREAT 112 RCPTS	1260	20 GFI			○	20	850	WASHER, LAUNDRY RCPTS	36
37	TREAT 112 XRAY	606	20	○			20	800	TEAM REFRIG	38
39	TREAT 113 RCPTS	1260	20 GFI		○		20	900	TEAM MICROWAVE	40
41	TREAT 114 XRAY	606	20			○	20	180	TEAM COUNTER GFI	42
43	TREAT 115 RCPTS	1260	20 GFI	○			20	696	TEAM DW/ DISPOSER	44
45	SPARE		20		○		20	180	TEAM COUNTER GFI	46
47	TREAT 117 RCPTS	1260	20 GFI			○	20	180	TEAM COUNTER GFI	48
49	SPARE		20	○			20/2	889	AIR COMPRESSOR	50
51	TREAT 118 RCPTS	1260	20 GFI		○		/	889		52
53	SPARE		20			○	20/2	915	VACUUM 1	54
55	TREAT 119 RCPTS	1260	20 GFI	○			/	915		56
57	SPARE		20		○		20/2	915	VACUUM 2 (REDUNDANT)	58
59	SPARE		20			○	/	915		60
61	SPARE		20	○			20	360	EQUIP. RCPTS	62
63	REDUNDANT GND LTS	734	20		○		20	200	MED GAS MANIFOLD	64
65	SUITE LTS	1382	20			○	20		SPARE	66
67	SPACE			○					SPACE	68
69	SPACE				○				SPACE	70
71	SPACE					○			SPACE	72

PHASE A	PHASE B	PHASE C
11.8	11.5	10.6

	CONN. KVA	DEMAND %	DEMAND KVA
LIGHTING	2.1	125	2.6
RECEPTACLES < 10 KVA	10.0	100	10.0
RECEPTACLES > 10 KVA	18.0	50	9.0
LARGEST MOTOR	0.0	125	0.0
MOTORS	1.8	100	1.8
HEAT	5.0	100	5.0
MISCELLANEOUS	0.0	100	0.0
MISC. DED CIRCUITS	5.5	100	5.5
MISCELLANEOUS	0.0	100	0.0

TOTAL KVA: 33.9 **TOTAL AMPS: 94.2**

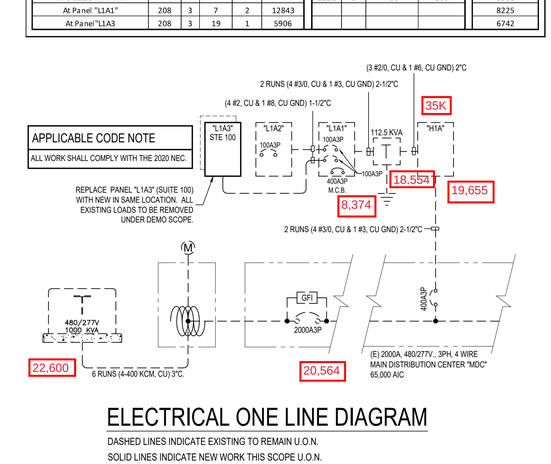
FAULT CURRENT CALCULATIONS *(UTILIZES THE BUSSMAN CALCULATION METHOD AND TABLES)*
CONTRACTORS ARE RESPONSIBLE FOR ACTUAL FEEDER DISTANCES AND FIELD CONDITIONS IN PROJECT BID AND SCOPE.

Description	Voltage	Ph	Length (FT)	# of Run(s)	Conductor "C" value
At 1000 kVA Utility Co Trans					
At "MDP"	480	3	177	6	24296
At Panel "H1A"	480	3	16	2	12843
At 112.5 kVA Xfmr	480	3	9	1	10755
Thru 112.5 kVA Xfmr					
At Panel "L1A1"	208	3	7	2	12843
At Panel"L1A3	208	3	19	1	5906

Transformer KVA	%Z	Prim. Voltage	Sec. Voltage	Available Fault Current (ISC)
				22600
				20566
				19658
				18558
112.5	3	480	208	8382
				8225
				6742

APPLICABLE CODE NOTE
ALL WORK SHALL COMPLY WITH THE 2020 NEC.

REPLACE PANEL "L1A3" (SUITE 100) WITH NEW IN SAME LOCATION. ALL EXISTING LOADS TO BE REMOVED UNDER DEMO SCOPE.



ELECTRICAL ONE LINE DIAGRAM

DASHED LINES INDICATE EXISTING TO REMAIN U.O.N.
SOLID LINES INDICATE NEW WORK THIS SCOPE U.O.N.

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COLORADO REGISTERED PROFESSIONAL ENGINEER 43330 06.15.2023

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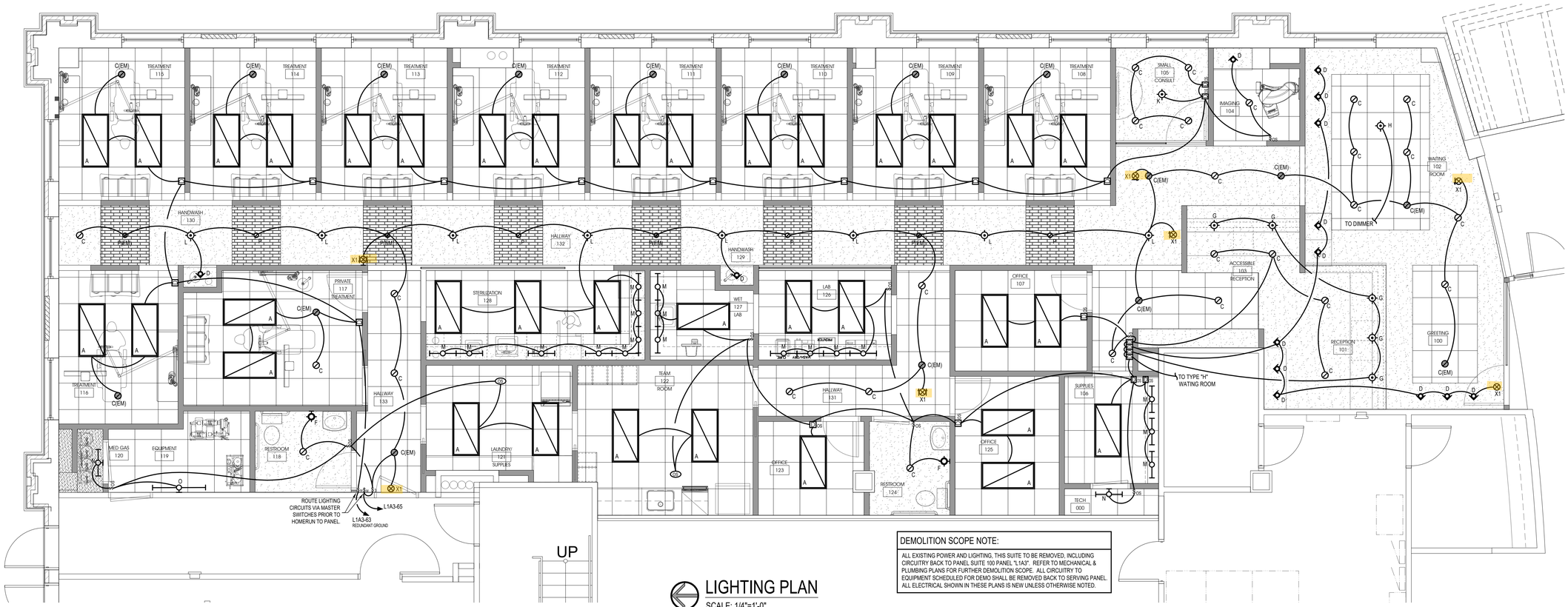
NO.	DATE	DESCRIPTION
	06.15.23	CONSTRUCTION

Sanders and Soult
Family Dentistry
Tenant Remodel
1444 S. Potomac Suite 100
Aurora, CO

DRAWN BY: HPE
CHECKED BY: BAP / MJH

SHEET TITLE: POWER PLAN

SHEET NUMBER: E1



LIGHTING PLAN

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

DEMOLITION SCOPE NOTE:

ALL EXISTING POWER AND LIGHTING, THIS SUITE TO BE REMOVED, INCLUDING CIRCUITRY BACK TO PANEL SUITE 100 PANEL "L1A3". REFER TO MECHANICAL & PLUMBING PLANS FOR FURTHER DEMOLITION SCOPE. ALL CIRCUITRY TO EQUIPMENT SCHEDULED FOR DEMO SHALL BE REMOVED BACK TO SERVING PANEL. ALL ELECTRICAL SHOWN IN THESE PLANS IS NEW UNLESS OTHERWISE NOTED.

Provide Emergency Illumination Equipment That complies with 2020 NEC 700.12(F) or NEC 700.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: mmartine
Date: Jun 30, 2023
2021 INTERNATIONAL CODES & 2020 NEC

COMcheck Software Version COMcheckWeb

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2021 IECC
Project Title: Sanders and Soult Family Dentistry
Project Type: Alteration

Construction Site: 1444 S Potomac Suite 100 Aurora, Colorado
Owner/Agent:
Designer/Contractor:

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-Health Care-Clinic	3541	0.81	2871
		Total Allowed Watts =	2871

Proposed Interior Lighting Power

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	A	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Health Care-Clinic (3541 sq.ft.)					
LED: A: 23X LED, Other:		1	36	30	1080
LED: CCDW: LED DOWNLIGHT: Other:		1	45	14	630
LED: D: LED A06 WW: Other:		1	14	8	112
LED: F: LED SCONCE: Other:		1	2	8	16
LED: G: LED PENDANT: Other:		1	5	8	40
LED: H: LED PENDANT: Other:		1	2	8	16
LED: K: LED PENDANT: Other:		1	1	8	8
LED: L: LED PENDANT: Other:		1	8	8	64
LED: O: 9' LED STRIP: Other:		1	2	19	38
LED: M: 2' LED UC LT: Other:		1	18	10	180
LED: N: 2' LED STRIP: Other:		1	2	10	20
LED: P/P(EM: LED DOWNLIGHT: Other:		1	8	14	112
				Total Proposed Watts =	2316

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 alteration project has been designed to comply with the 2021 IECC with COMcheck version COMCheckWEB and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

COMcheck Software Version COMcheckWeb

Inspection Checklist

Energy Code: 2021 IECC

Requirements: 8.0% were addressed directly in the COMcheck 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.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 (RA2)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment which are located and described in the manner that the standard are claimed. Information provided should include interior lighting equipment schedule, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3. 1 (EL122'	Spaces required to have light-reduction daylight responsive control that allows the occupant to reduce the connected lighting load in accordance with Exception pattern >= 50 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1. C405.2.1. 1 (EL118'	Occupancy sensors installed in classroom/lecture/training rooms, conference/meeting/multipurpose rooms, employee lunch and break rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, locker/changing rooms, hallways, corridors, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouse and section C405.2.1.3 for control function in hallways.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1. 2 (EL193'	Occupancy sensors control function in warehouses. In warehouses, the lighting in aisleways and open areas is automatically reduced by 50% or more, automatically reduce lighting power by 50% or more within 20 minutes of the space becoming unoccupied, the occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the occupant sensor, and override of occupant sensors is done so by time-switch.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1. 3 (EL200'	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. are automatically configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) general lighting in each control zone shall turn on upon occupancy in control zone, 3) automatically turn off general lighting within control zone within 20 minutes after all occupants have left the space, 4) are configured so that general lighting power in each control zone is reduced by >= 85% of the full zone general lighting power within 20 minutes after all occupants leaving that control zone.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.2. C405.2.2. 1 (EL213'	Each area not served by occupancy sensors (per C405.2.1.1) have time-switch controls and functions detailed in sections C405.2.2.1.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.4. C405.2.4. 1 C405.2.4. 2 (EL237'	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces. C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.5 (EL277'	Additional interior lighting power allowed for special functions per the exception is automatically and automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.7 (EL260'	Electric motor-driven equipment selection shall meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Impedance transformers.
C405.8 (EL277'	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Motors certified under a certification under an approved certification program or the equipment efficiency rating is based on an approved test (manufacturer /where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.9.1. C405.9.2 (EL287'	Escalators and moving walks comply with ASME A17.1/CSA B44 and have the capability of automatically slowing to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 when passenger is not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.10 (EL299'	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.1.1 (EL307'	At least 90% of dwelling unit permanently installed lighting shall have lamp efficacy >= 65 lm/W or luminaire efficacy >= 65 lm/W, or be controlled by a dimmer or comply with C405.2.4 or C404.3.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.11. C405.11. (EL313'	50% of 15/20 amp receptacles installed in enclosed offices, conference rooms, copy rooms, breakrooms, classrooms, and lounges and > 25% of branch circuit feeders for modular furniture will have automatic shutdown controls in accordance with C405.11.1.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3. C408.2.5. (FI17'	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.1.1 (FI57'	Building operations and maintenance documents will be provided to the building owner with the manufacturers' information, specifications, programming documentation, and operating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.5 (FI58'	Furnished as-built drawings for lighting controls submitted within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.3 (FI33'	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

FIXTURE SCHEDULE

KEY	DESCRIPTION OF LUMINAIRE: MAX WATTAGE	DESCRIPTION	FINISH	MOUNTING DATA: METHOD	RECESS DEPTH	CEILING TYPE	LUMINAIRE SPECIFICATION: MANUFACTURER	CATALOG NUMBER	VOLTS	KEY NOTES
A	30W LED	RECESSED DIMMABLE 2X4 LED FIXTURE	STANDARD	RECESS	5"	T-GRID	METALUX	24CZ-LD5-40-UNV-L835-CD1-U	120	
C	14W LED	6" RECESSED DIMMABLE LED DOWNLIGHT	STANDARD	RECESS	7-1/4"	VARIES	HALO	HC615D010-HM612835-61MDH	120	
C(EM)	14W LED	SAME AS TYPE "C" EXCEPT WITH EM BATTERY	STANDARD	RECESS	7-1/4"	VARIES	HALO	HC615D010IEM7-HM612835-61MDH IEM	120	3
D	8W LED	4" RECESSED ADJUSTABLE WALLWASHER	WHITE	RECESS	5"	GYP	HALO	RA4-06-9S-WH-DM	120	
F	8W LED MAX	DECORATIVE VANITY SCONCE	ANTIQUE BRONZE	SURFACE	N/A	VARIES	VOLUME	4071-79	120	2
G	8W LED MAX	DECORATIVE PENDANT	OIL RUBBED BRONZE	SURFACE	N/A	VARIES	KOHLER	K-22653-PE01-BZL	120	1
H	8W LED MAX	DECORATIVE PENDANT	IRON ORE	PENDANT	N/A	VARIES	Z-LITE	1935-26IO	120	1
K	8W LED MAX	DECORATIVE PENDANT	BRONZE	SURFACE	N/A	VARIES	SEAGULL	65160-710	120	1
L	8W LED MAX	DECORATIVE PENDANT	OIL BRONZE	PENDANT	N/A	VARIES	CRAFTMADE	Z4421-OBG	120	1
M	10W LED	24" LED UNDERCABINET FIXTURE	WHITE	SURFACE	N/A	N/A	HALO	HLI30-BSC-24-P	120	
N	19W LED	2' LED WRAPAROUND	TBD	SURFACE	N/A	N/A	METALUX	2BCLED-LD4-16SL-35-F-UNV-CD	120	
O	25W LED	4' LED WRAPAROUND	TBD	SURFACE	N/A	N/A	METALUX	4BCLED-LD4-36SL-35-F-UNV-CD	120	
P	14W LED	4" RECESSED DIMMABLE LED DOWNLIGHT WITH BLACK BAFFLE & FLANGE	STANDARD	RECESS	7-1/4"	VARIES	HALO	HC415D010-HM40525835-41-WD-BB-BF	120	
P(EM)	14W LED	4" RECESSED DIMMABLE LED DOWNLIGHT WITH BLACK BAFFLE & FLANGE	STANDARD	RECESS	7-1/4"	VARIES	HALO	HC415D010-HM40525835-41-WD-BB-BF	120	
X1	INTEGRAL	UNIVERSAL LED EDGELIT EXIT SIGN	WHITE	SURFACE	N/A	N/A	SURELITES	EUX7G	120	

KEY NOTES:
1. COORDINATE WITH ARCHITECTURAL ELEVATIONS FOR FINAL PENDANT MOUNTING HEIGHT. FIXTURE STEM OR CORD MAY REQUIRE FIELD MODIFICATION TO ACHIEVE DESIRED HEIGHT.
2. COORDINATE WITH ARCHITECTURAL ELEVATIONS FOR FINAL SCONCE MOUNTING HEIGHT.
3. WIRE EM BATTERY SO THAT FIXTURE IS CONTROLLED LOCALLY WHEN NORMAL POWER IS PRESENT, UNLESS OTHERWISE NOTED.

GENERAL NOTES:
1. SUBMIT CUT SHEETS (PDF FORMAT) FOR ARCHITECT AND ENGINEER APPROVAL.
2. ALL LAMPS SHALL BE SUITABLE FOR FIXTURES AND AS PER IECC STUDY / COMCHECK INDICATED.

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COLORADO REGISTERED BRIAN A. PAPESH 43330 PROFESSIONAL ENGINEER
06.15.2023

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NO.	DATE	DESCRIPTION
	06.15.23	CONSTRUCTION

DRAWN BY: HPE
CHECKED BY: BAP / MJH

SHEET TITLE: LIGHTING PLAN

SHEET NUMBER: E2

Sanders and Soult Family Dentistry
Tenant Remodel
1444 S. Potomac Suite 100
Aurora, CO