



# BOARD OF ZONING APPEALS APPLICATION

Please reach out to a City of Knoxville Zoning Examiner about your project before submitting a variance application.

APPLICANT INFORMATION	APPLICANT IS:	THIS PROPOSAL PERTAINS TO:
Name (Individual not company) Davis Overton	Owner <input type="checkbox"/>	New Structure <input type="checkbox"/>
Street Address 5900 Middleview Way	Contractor <input type="checkbox"/>	Modification of Existing Structure <input type="checkbox"/>
City, State, Zip Knoxville, TN 37909	Tenant <input type="checkbox"/>	Off Street Parking <input type="checkbox"/>
Phone Number 865-588-2244 x 102	Other <input checked="" type="checkbox"/>	Signage <input type="checkbox"/>
Applicant Email doverton@whiterealty.com		Other <input checked="" type="checkbox"/>

### THIS IS A REQUEST FOR:

- Zoning Variance (Building Permit Denied)
  Extension of Non-Conforming Use/or Structure  
 Appeal of Administrative Official's Decision
  Map Interpretation

### PROPERTY INFORMATION

Street Address 6701 Baum Drive City, State, Zip Knoxville, TN 37919  
 See [KGIS.org](http://KGIS.org) for Parcel # 121HA00231 City Council District # 2 and Zoning District I-G

### VARIANCE REQUIREMENTS

#### City of Knoxville Zoning Ordinance Article 16, Section 16.3

The City of Knoxville Board of Zoning Appeals shall have the power and authority to grant variances from terms of this ordinance according to the procedure and under the restrictions set out in this section.

The purpose of the variance is to modify the strict application of the specific requirements of this ordinance in the case of exceptionally irregular, narrow, shallow or steep lots, or other exceptional physical conditions, whereby such strict application would result in practical difficulty or unnecessary hardship which would deprive an owner of the reasonable use of his land. The variance shall be used only where necessary to overcome some obstacle which is preventing an owner from using his property as the zoning ordinance intended.

### DESCRIPTION OF APPEAL

#### Describe your project and why you need variances.

We have a dental practice (Dr. Harrell) that has been on Baum Drive for 33 years. During recode Knoxville the properties along Baum Drive where his practice has been and currently is were zoned I-G and the medical/dental office/clinic use was omitted from the permitted uses in this zoning.

Dr. Harrell's practice is currently located at 6751 Baum Drive and the building permit application in review is to relocate to 6701 Baum Drive. These two buildings are on the same lot.

We request for the Board of Zoning Appeals to permit the relocation of a pre-existing nonconforming dental office use in the I-G district from the current location at 6751 Baum Drive to another building on the same lot that is addressed at 6701 Baum Drive.

#### Describe hardship conditions that apply to this variance.

Site plans and any other relevant information associated with the hardship must accompany this application.

### APPLICANT AUTHORIZATION

I hereby certify that I am the authorized applicant, representing ALL property owners involved in this request and that all owners have been notified of this request in writing.

APPLICANT'S SIGNATURE

*Davis C. Overton*

DATE

9/5/23

File #



**BOARD OF ZONING APPEALS APPLICATION**

**\*\*\*\*\*OFFICE USE ONLY\*\*\*\*\***

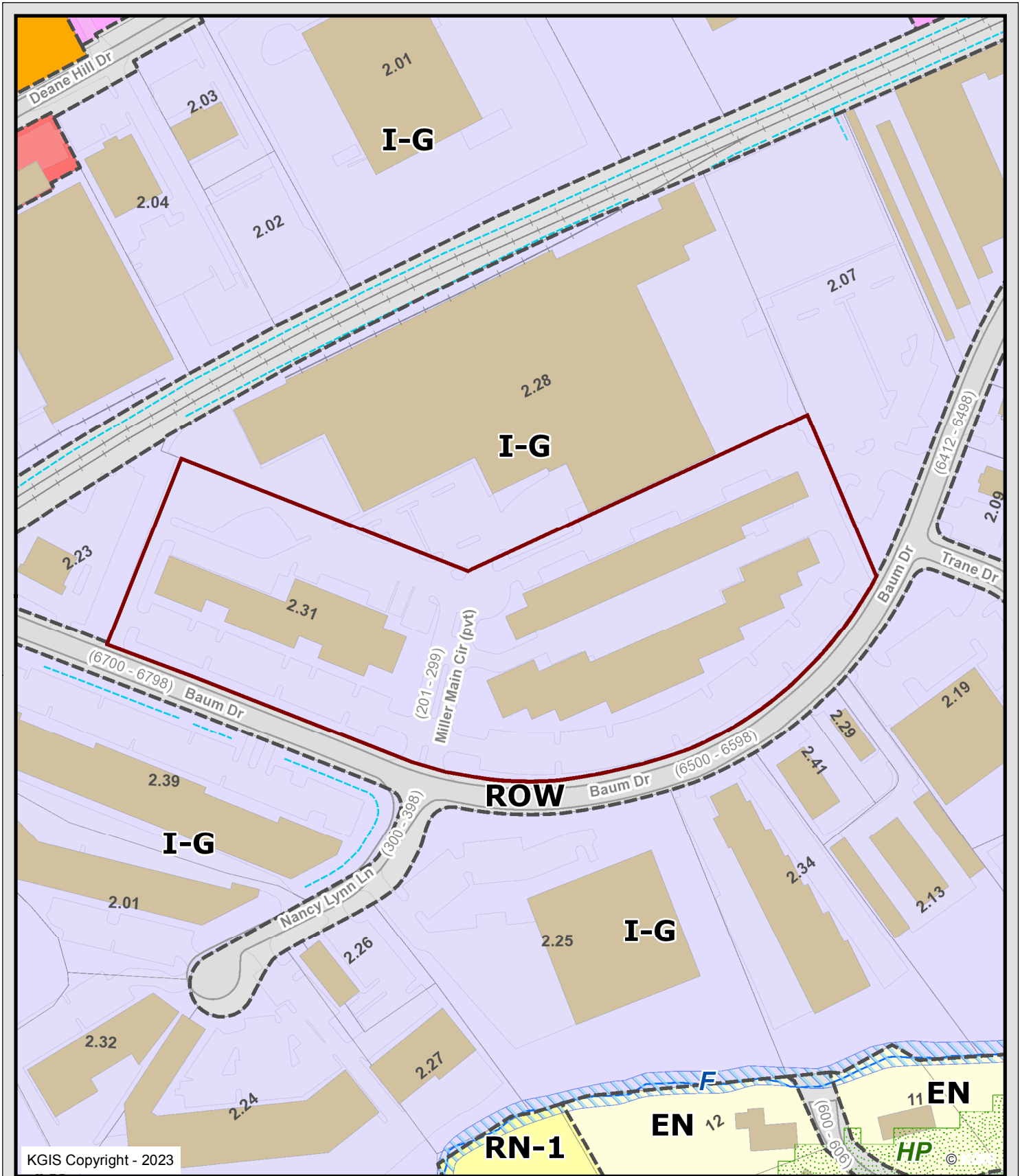
Is a plat required?    Yes      No  

**VARIANCE REQUEST(S) WITH ORDINANCE CITATION(S):**

*(This area is intentionally left blank for the applicant to provide details of the variance request and ordinance citations.)*

**PROJECT INFORMATION**

Date Filed	Fee Amount
Council District	BZA Meeting Date
<b>PLANS REVIEWER</b>	<b>DATE</b>



KGIS Copyright - 2023

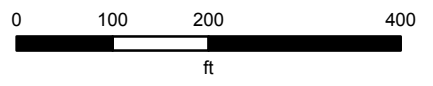
### 6701 BAUM DR

10-A-23-VA  
Davis Overton

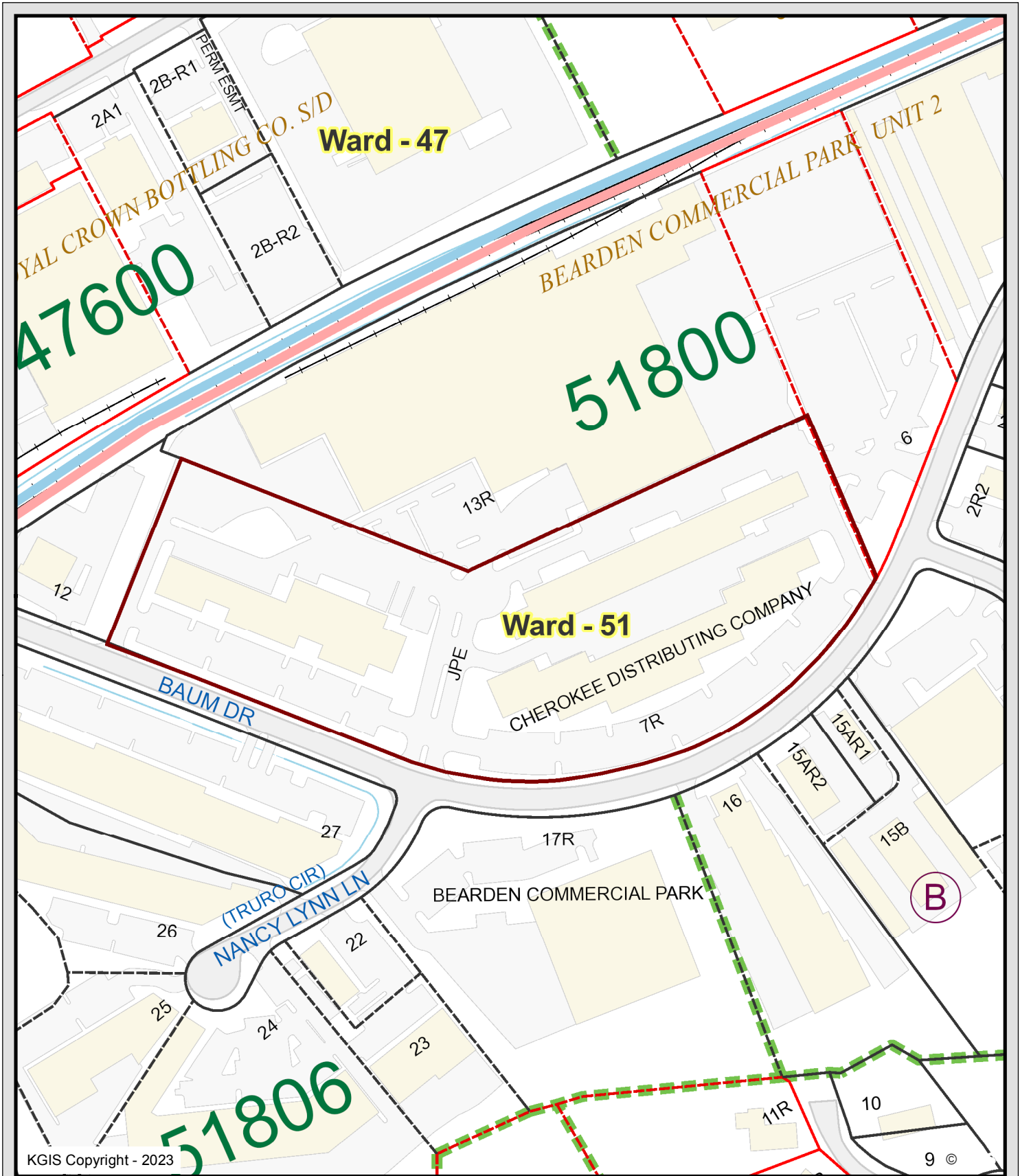
#### Knoxville - Knox County - KUB Geographic Information System



Printed: 9/8/2023 at 2:11:10 PM



KGIS makes no representation or warranty as to the accuracy of his map and its information nor to its fitness for use. Any user of this map product accepts the same AS IS, WITH ALL FAULTS, and assumes all responsibility for the use thereof, and further covenants and agrees to hold KGIS harmless from any and all damage, loss, or liability arising from any use of this map product.



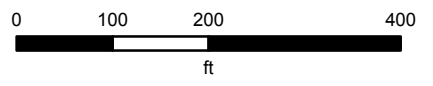
KGIS Copyright - 2023

**6701 BAUM DR**  
 10-A-23-VA  
 Davis Overton

**Knoxville - Knox County - KUB Geographic Information System**



Printed: 9/8/2023 at 2:11:31 PM



KGIS makes no representation or warranty as to the accuracy of his map and its information nor to its fitness for use. Any user of this map product accepts the same AS IS ,WITH ALL FAULTS, and assumes all responsibility for the use thereof, and futher covenants and agrees to hold KGIS harmless from any and all damage, loss, or liability arising from any use of this map product.



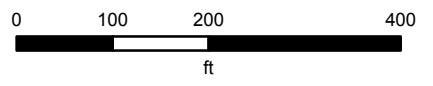
# 6701 BAUM DR

10-A-23-VA  
Davis Overton

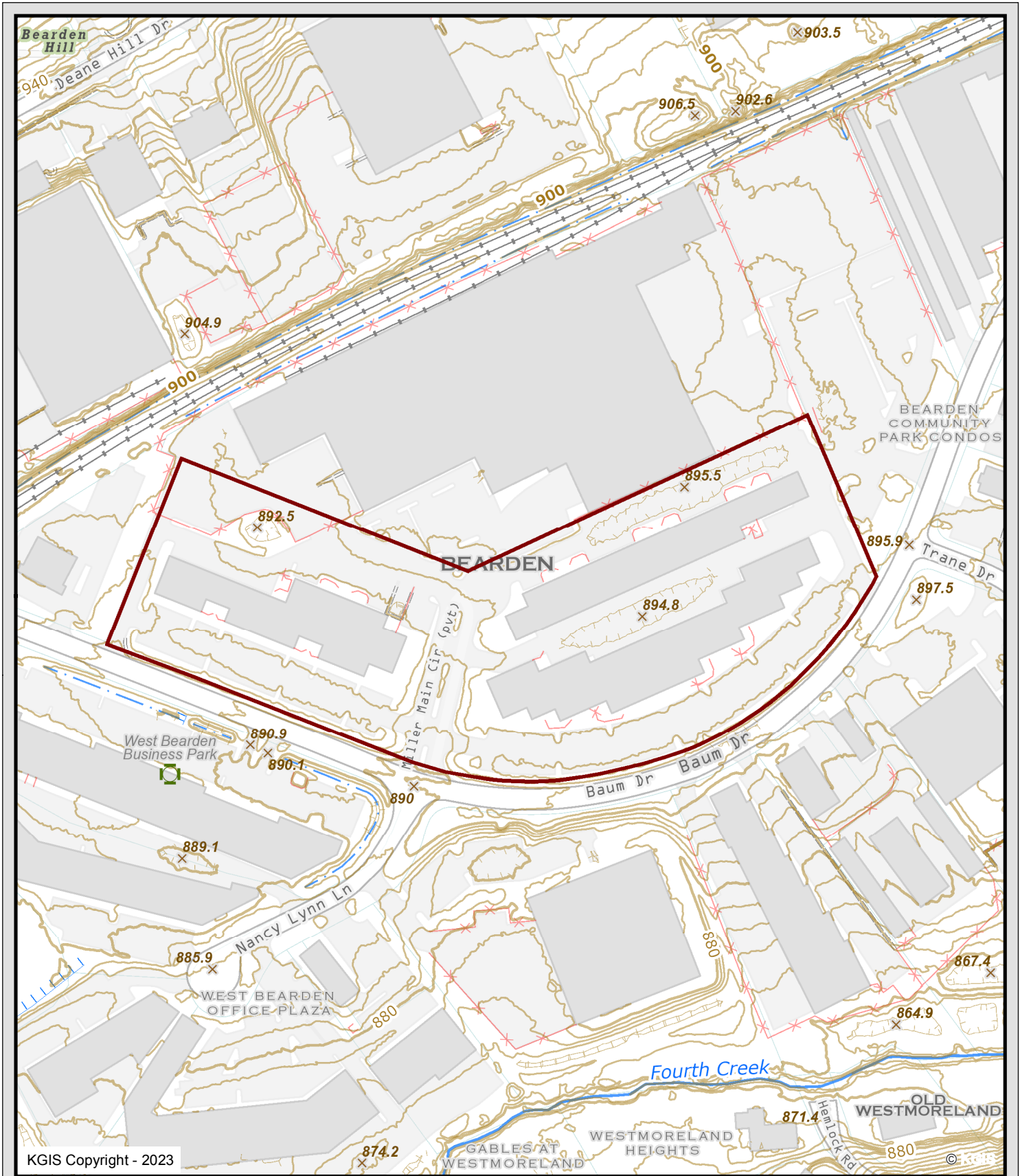
## Knoxville - Knox County - KUB Geographic Information System



Printed: 9/8/2023 at 2:10:42 PM



KGIS makes no representation or warranty as to the accuracy of his map and its information nor to its fitness for use. Any user of this map product accepts the same AS IS ,WITH ALL FAULTS, and assumes all responsibility for the use thereof, and futher covenants and agrees to hold KGIS harmless from any and all damage, loss, or liability arising from any use of this map product.



KGIS Copyright - 2023

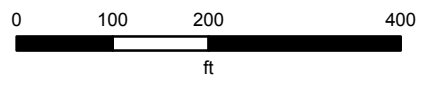
### 6701 BAUM DR

10-A-23-VA  
Davis Overton

#### Knoxville - Knox County - KUB Geographic Information System



Printed: 9/8/2023 at 2:11:52 PM



KGIS makes no representation or warranty as to the accuracy of his map and its information nor to its fitness for use. Any user of this map product accepts the same AS IS ,WITH ALL FAULTS, and assumes all responsibility for the use thereof, and futher covenants and agrees to hold KGIS harmless from any and all damage, loss, or liability arising from any use of this map product.

# Renaissance Business Center

Post Office Box 10028, Knoxville, TN 37939-0028

Phone (865) 588-2244 Fax (865) 588-3233

---

September 22, 2023

Mike Robinson  
Zoning Examiner  
Plans Review & Inspections Division  
City County Building  
400 Main Street, Room 475  
Knoxville, Tennessee 37902

RE: Variance Application  
6701 Baum Drive  
Knoxville, Tennessee 37919

Dear Mike:

Please have this letter serve as a response to the conditions listed in Article 17.1.A.1

- a) Yard requirements exist and is not be less than those required for the district in which the nonconforming use is located.
- b) The percentage of lot covered by the building exists and is not be greater than the maximum stated for the district.
- c) The architectural style exists and is similar to that which exists in the area.
- d) Parking exists and no off-street parking will be added.
- e) Landscaping exists and will not be modified.
- f) Any signage required in conjunction with the nonconforming use is agreed to and accepted.
- g) It is understood that these requirements shall be binding on the property regardless of succession of ownership, unless the use is changed to one generally permitted in the district, or the zoning is changed to make the use conforming. Performance bonds or other sureties acceptable to the city may be required where appropriate to the circumstances of the case.
- h) There is no modification to the site. The building plans are for tenant build-out only and are attached. Also attached is a photograph of the storefront that will not be modified and the exterior of the building which will not be modified.

Sincerely,



Davis A. Overton  
Agent

Enclosures

# Description of the Project for/at: Don Harrell D.D.S.

6701 Baum Drive Unit 165  
Knoxville, TN 37919

08.10.2023



<b>A</b> ACT	ACOUSTICAL CEILING TILE	<b>M</b> MAX	MAXIMUM MANUFACTURER MINIMUM
<b>ADJ</b> AFF	ADJUSTABLE ABOVE FINISH FLOOR ALTERNATE	<b>N</b> NIC	NOT IN CONTRACT NOT TO SCALE
<b>C</b> CI	CONTINUOUS INSULATION CONTROL JOINT	<b>O</b> OC	ON CENTER OCCUPANT
<b>CLR</b> COM	CLEAR CUSTOMER OWNED MATERIAL CONCRETE MASONRY UNIT	<b>OCC</b> OFCI	OWNER FURNISHED; CONTRACTOR INSTALLED OWNER FURNISHED; OWNER INSTALLED
<b>D</b> DIA	DIAMETER	<b>P</b> PT	PRESSURE-TREATED
<b>E</b> EIFS	EXTERIOR INSULATION FINISH SYSTEM	<b>R</b> RAD	RADIUS
<b>EJ</b> EQ	EXPANSION JOINT EQUAL EXISTING TO REMAIN	<b>RCP</b> RO	REFLECTED CEILING PLAN ROUGH OPENING
<b>E</b> FD	FLOOR DRAIN	<b>S</b> SAR	SHELF & ROD
<b>FEC</b> FE	FIRE EXTINGUISHER FIRE EXTINGUISHER CABINET	<b>SIM</b> SIP	SIMILAR CONDITION STRUCTURAL INSULATED PANEL
<b>FFE</b> FRT	FINISH FLOOR ELEVATION FIRE-RETARDANT TREATED	<b>SHGC</b> SSM	SOLAR HEAT-GAIN COEFFICIENT SOLID-SURFACE MATERIAL
<b>FOF</b> FOM	FACE OF FINISH FACE OF MASONRY FEET	<b>SAS</b>	SURFACE MATERIAL SURFACED ON FOUR SIDES
<b>G</b> GA	GAUGE	<b>T</b> TBD	TO BE DETERMINED
<b>GYP</b>	GYPSUM	<b>TYP</b>	TYPICAL OF LIKE CONDITIONS
<b>H</b> HB	HOSE BIB	<b>U</b> UNO	UNLESS NOTED OTHERWISE
<b>HH</b> HM	HEAD HEIGHT HOLLOW-METAL	<b>V</b> VIF	VERIFY IN FIELD
<b>L</b> LED	LIGHT-EMITTING DIODE	<b>W</b> W	WITH
<b>LVL</b>	LAMINATED VENEER LUMBER	<b>W/O</b> WC	WITHOUT WATER CLOSET
		<b>WC</b> WMCT	WIRE MANAGEMENT CABLE TRAY

- DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, CONTRACTOR SHALL OBTAIN CLARIFICATION, IN WRITING, FROM THE ARCHITECT.
- INTERIOR AND EXTERIOR WALL AND PARTITION DIMENSIONS ARE FROM FACE OF STUD TO FACE OF STUD UNLESS NOTED OTHERWISE. MASONRY DIMENSIONS ARE FROM OUTSIDE EDGE TO OUTSIDE EDGE UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL CODES, REGULATIONS AND ORDINANCES AND SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR CONSTRUCTION.
- FIRE EXTINGUISHER(S) ARE REQUIRED IN THE SPACE PER NFPA 10. MOUNT CABINETS AND EXTINGUISHERS AT LOCATIONS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE FIRE/BUILDING INSPECTOR.
- CONSTRUCTION MATERIALS SPECIFIED AND NOTED ON THE DRAWINGS ARE REPRESENTATIVE OF THE GENERAL DESIGN INTENT.
- GENERAL CONDITIONS TO VERIFY CONDITIONS PRIOR TO BIDDING. IF CONDITIONS ARE DIFFERENT THAN SHOWN IN DRAWINGS, CONTACT ARCHITECT IMMEDIATELY.
- WHERE A DETAIL IS SHOWN OR A NOTE IS DESCRIBED FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS EVEN THOUGH NOT SPECIFICALLY NOTED ON THE DRAWINGS.
- CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT SURROUNDINGS PROPERTY, STREETS, WALKS, ETC. DURING CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED AS A RESULT.
- CONTRACTOR TO COORDINATE LOCATION OF TEMPORARY CONSTRUCTION BARRIERS WITH OWNER. MEANS OF EGRESS EXIT ACCESS ROUTES MUST REMAIN OPEN AND ACCESSIBLE TO ALL OCCUPANTS.

Construction Documents  
08.10.2023

TITLE		
<b>G0.0</b>	Cover Sheet, Life Safety and General Information	•
<b>G0.1</b>	Accessibility Details	•
<b>ARCHITECTURAL</b>		
<b>A1.1</b>	Floor Plan, Demo Plan and RCP	•
<b>A4.1</b>	Finish Plan, Schedule, and Interior Details	•
<b>A4.2</b>	Enlarged Plans and Interior Elevations	•
<b>A6.1</b>	Door Schedule, Elevations, & Details	•
<b>MECHANICAL</b>		
<b>M0.1</b>	General	•
<b>M0.2</b>	Details and Schedules	•
<b>M1.1</b>	Floor Plan	•
<b>M2.1</b>	Roof Plan	•
<b>ELECTRICAL</b>		
<b>E0.1</b>	General	•
<b>E0.2</b>	Schedules	•
<b>E1.1</b>	Floor Plan	•
<b>E1.2</b>	RCP	•
<b>PLUMBING</b>		
<b>P0.1</b>	General	•
<b>P0.2</b>	Schedules and Details	•
<b>P1.1</b>	Floor Plans	•
<b>P1.2</b>	Floor Plan - Vacuum & Air	•
<b>P1.3</b>	Roof Plan	•

CD Set: 08.10.2023



studio four design inc.  
architecture | interiors  
414 clinch avenue | knoxville, tn 37902  
865.523.5001 | studiofourdesign.com

9 Location Map

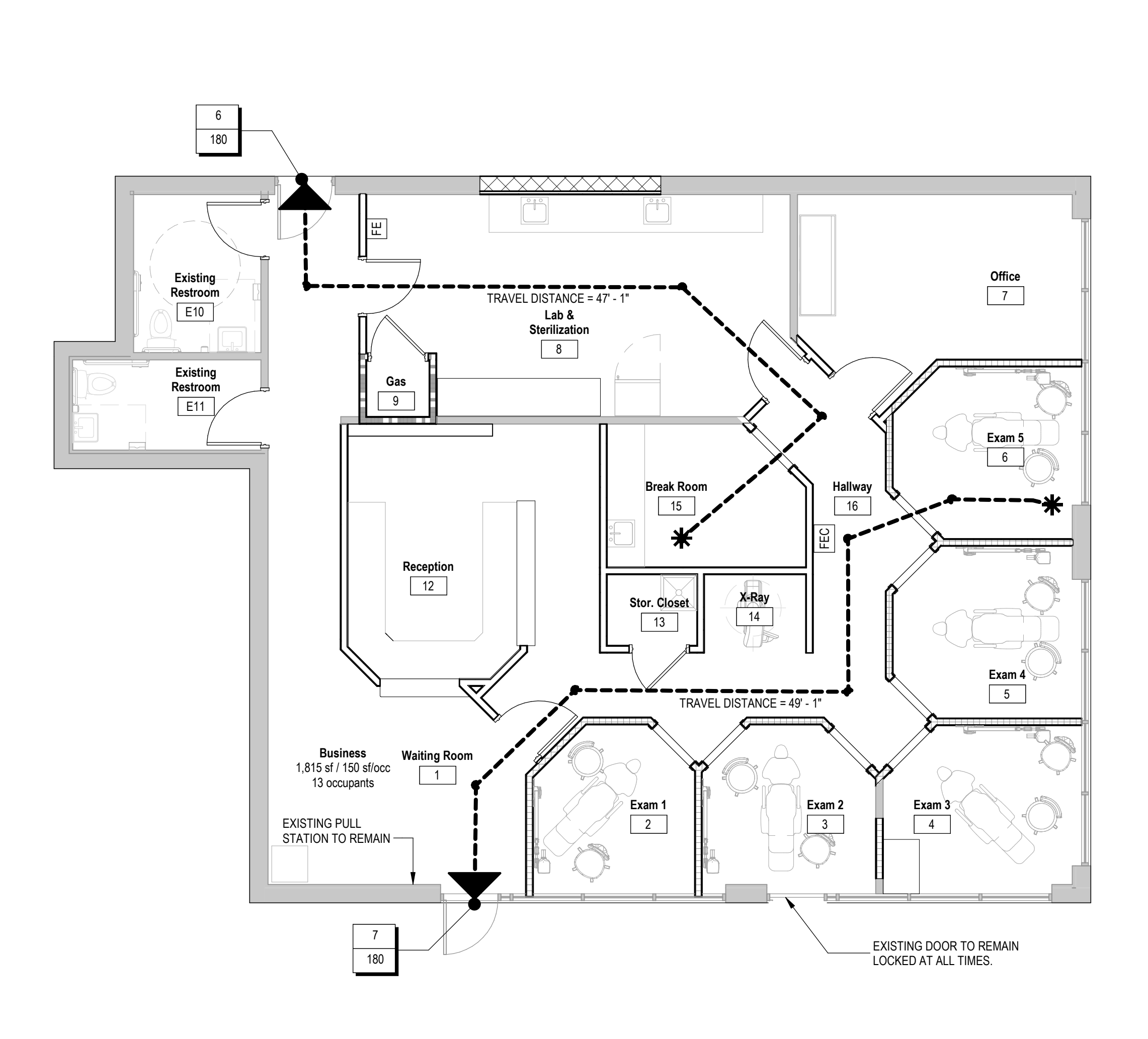
5 Abbreviations

3 General Notes

2 Sheet List

<b>01</b>	ACCESSORY TAG	<b>*</b>	REMOTE LOCATION
<b>ACT-1</b> 10'-11 1/2"	CEILING TAG	<b>##-##</b>	PATH OF TRAVEL - DISTANCE AS NOTED
<b>CL</b>	CENTERLINE SYMBOL	<b>▲</b>	POINT OF EXIT DISCHARGE - CAPACITY AS NOTED IN TAG
<b>01</b>	DEMOLITION TAG	<b>FEC</b>	FIRE EXTINGUISHER CABINET
<b>101a</b>	DOOR TAG	<b>FE</b>	FIRE EXTINGUISHER - MOUNTED DIRECTLY TO WALL
<b>A</b>	FENESTRATION TAG	<b>LOAD</b>	EXIT COMPONENT TAG - LOAD & CAPACITY NOTED RESPECTIVELY
<b>Level Elevation</b>	LEVEL & ELEVATION MARKER	<b>CAP</b>	EXIT COMPONENT TAG - LOAD & CAPACITY NOTED RESPECTIVELY
<b>PROJECT NORTH DESIGNATOR &amp; TRUE NORTH ARROW</b>	PROJECT NORTH DESIGNATOR & TRUE NORTH ARROW	<b>WORK AREA</b>	WORK AREA
<b>REVISION TAG</b>	REVISION TAG		
<b>Room Name</b> 101a	ROOM TAG		
<b>SPOT ELEVATION MARKER</b>	SPOT ELEVATION MARKER		
<b>WALL TAG</b> 4A	WALL TAG		
<b>SIM</b> 1 A101	DETAIL SECTION MARKER		
<b>SIM</b> 1 A101	DETAIL / ENLARGEMENT CALLOUT		
<b>INTERIOR ELEVATION MARKER</b> 1 A101	INTERIOR ELEVATION MARKER		

<b>7 Life Safety Symbols</b>
WORK AREA = 100% GROSS AREA



<b>OVERVIEW</b>		
SCOPE OF WORK:	THE PROJECT SHALL BE AN INTERIOR RENOVATION OF A SINGLE STORY DENTAL OFFICE IN AN EXISTING 1,815SF TENANT SPACE.	
APPLICABLE CODES:	2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2018 INTERNATIONAL BUILDING CODE (IBC) 2018 INTERNATIONAL EXISTING BUILDING CODE (IEBC) 2017 NATIONAL ELECTRICAL CODE (NEC) 2018 INTERNATIONAL FUEL GAS CODE (IFGC) 2018 INTERNATIONAL MECHANICAL CODE (IMC) 2018 INTERNATIONAL PLUMBING CODE (IPC)	
ACCESSIBILITY CODE:	2009 ICC / ANSI A117.1	
ZONING:	I-G: GENERAL INDUSTRIAL ZONING DISTRICT	
CLIMATE ZONE:	4-A	
FIRE DISTRICT:	YES	
OCCUPANCY TYPE:	EXISTING BUSINESS	
OCCUPANCY GROUP(S):	B: BUSINESS	
OCCUPANCY LOAD:	TOTAL OCCUPANCY = 15	
AREA (TOTAL):	1,815 SF	
CONSTRUCTION TYPE:	II-B	
SPRINKLERED:	NO	
EXISTING BUILDING COMPLIANCE METHOD:	WORK AREA (IEBC 301.3.2) - 100% OF TOTAL GROSS AREA	
LEVEL OF ALTERATION:	LEVEL 3	
INCIDENTAL USES:	HYDROGEN FUEL GAS ROOMS, NOT CLASSIFIED AT GROUP H. 1 HOUR IN GROUP B OCCUPANCY.	
<b>BUILDING REQUIREMENT</b>	<b>AS ALLOWED BY CODE</b>	<b>AS DESIGNED</b>
Area per Story:	9,000 (IBC Table 506.2)	1,815 sf
Number of Stories (above Grade Plane):	3 (IBC Table 504.4)	1
Building Height:	55 (IBC Table 504.3)	EXISTING TO REMAIN. ALTERATION DOES NOT INCREASE BUILDING HEIGHT.
Travel Distance:	200'-0" (IBC 1017.2)	49'-1" Max.
Common Path of Travel:	75'-0" (IBC Table 1006.2.1)	14'-0" Max.
Number of Exits:	1 (IBC Table 1006.2.1)	2
Corridor Width:	36" Min (Table 1020.2)	
<b>PLUMBING REQUIREMENT</b>	<b>AS ALLOWED BY CODE</b>	<b>AS DESIGNED</b>
Water Closets (Unisex):	2 (IPC Table 2902.1)	2
Lavatories:	2 (IPC Table 2902.1)	2
Drinking Fountains:	1 PER 100 (IPC Table 2902.1)	BEVERAGE UPON REQUEST
Service Sink:	1 (IPC Table 2902.1)	1
* SPECIFIC OCCUPANCY REQUIREMENTS (IBC 427): MEDICAL GASES SHALL BE LOCATED IN AREAS DEDICATED TO THE STORAGE OF SUCH GASES WITHOUT OTHER STORAGE OR USES. WHERE CONTAINERS OF MEDICAL GASES IN QUANTITIES GREATER THAN THE PERMITTED AMOUNT ARE LOCATED INSIDE THE BUILDING, THEY SHALL BE LOCATED IN A 1-HOUR EXTERIOR ROOM, 1-HOUR INTERIOR ROOM OR GAS CABINET WITH SECTION 427.2.1, 427.2.2, OR 427.2.3, RESPECTIVELY. ROOMS OR AREAS WHERE MEDICAL GASES ARE STORED OR USED IN QUANTITIES EXCEEDING THE MAXIMUM ALLOWED QUANTITY PER CONTROL AREA SET FOR TABLES 307.1(1) AND 307.2(2) SHALL BE IN ACCORDANCE WITH GROUP H OCCUPANCIES (SEE IBC 427.2, (1-3) FOR REQUIREMENTS)		

8 Symbols

6 Work Area Plan

4 Life Safety Plan - Level 1

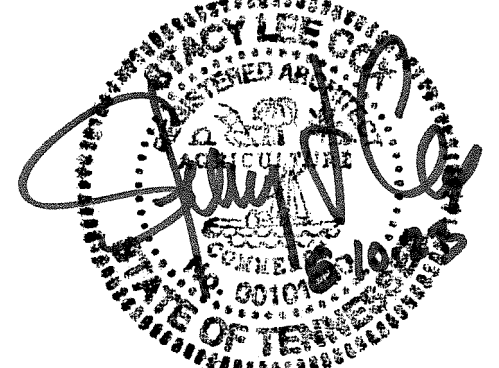
1 Code Review

<b>Owner:</b> Donald R Harrell DDS & Associates 6751 Baum Drive, Suite 165 Knoxville, TN 37919	<b>Architect:</b> Studio Four Design, Inc. 414 Clinch Avenue Knoxville, TN 37902	<b>M/E/P Engineer:</b> Proficient Engineering and Mechanical 4110 Sutherland Ave Knoxville, TN 37919
<b>Contact:</b> Micah Oulliams T: 865.771.9738 E: micah.323construction@outlook.com	<b>Contact:</b> Stacy Cox T: 865.523.5001 E: scox@s4dinc.com	<b>Contact:</b> Thomas Wasmund T: 865.409.5755 E: twasmund@proficientengineering.com

7 Project Contacts

1 Code Review

Description of the Project for/at:  
**Don Harrell D.D.S.**  
6701 Baum Drive Unit 165  
Knoxville, TN 37919



Project Phase: Construction Documents

<b>Issue Date:</b> 08.10.2023		
<b>Revisions</b>		
No.	Description	Date

Job Number: 23106

Cover Sheet, Life Safety and General Information

**G0.0**

Date: 8/10/2023 10:01:22 AM  
 Checked By: Checker  
 Drawn By: Author  
 File: C:\Users\amyers\Documents\Local Models\23106\_Don Harrell DDS\_R22\_amyers\VCN\Kv1

© 2023 studio four design, inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.







studio four design inc.  
architecture | interiors  
414 cinch avenue | knoxville, tn 37902  
865.523.5001 | studiofourdesign.com

Description of the Project for/at:  
**Don Harrell D.D.S.**  
6701 Baum Drive Unit 165  
Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08.10.2023

No.	Description	Date

Job Number: 23106

Floor Plan, Demo Plan and RCP

**A1.1**

- REMOVE ALL EXISTING WALLS TO EXTENT SHOWN, WHILE PROTECTING SURROUNDING FINISHES. DISPOSE OF WALL MATERIALS APPROPRIATELY.
- REMOVE AND PRESERVE EXISTING DOOR, FRAME, AND ASSOCIATED HARDWARE AS NOTED. DISPOSE OF ALL OTHER ASSOCIATED MATERIALS APPROPRIATELY.
- REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR RELOCATION OF VARIOUS COMPONENTS.
- REMOVE ALL LIGHTING, CEILING, CEILING GRILLES, AND ASSOCIATED COMPONENTS THROUGH ENTIRE SCOPE OF WORK.
- PROVIDE MOISTURE-RESISTANT GYPSUM BOARD IF WALL FACE CONTAINS A PLUMBING FIXTURE, IS LOCATED IN A RESTROOM, OR IS WITHIN 2' OF A PLUMBING FIXTURE.
- PROVIDE CEMENT BACKERBOARD IN LIEU OF GYPSUM BOARD WHERE TILE FINISH IS SPECIFIED.
- ALL NON-BEARING WALL FRAMING TO BE 16" O.C. SEE STRUCTURAL FOR BEARING WALL FRAMING.
- THE OWNER PROVIDED X-RAY SPECIFICATIONS DO NOT REQUIRE LED LINED GYP IN THE WALLS SURROUNDING THE X-RAY EQUIPMENT AND COMPONENTS. LEAD LINED APRONS SHALL BE WORN DURING USE.

**2 General and Demo Notes**

- Recessed Troffer Light (2x4)**  
LED
- Recessed Can Light (6" Diameter)**  
LED CAN LIGHT WITH TRIM RING.
- Gypsum Board Ceiling**  
5/8" THICK GYPSUM BOARD OVER LIGHT-GAUGE STEEL FRAMING. SEE INTERIOR FINISH SCHEDULE.
- Acoustical Ceiling Tile System**  
TILES PER FINISH SCHEDULE. PROVIDE SOUND BATT INSULATION. SEE INTERIOR FINISH SCHEDULE.

- REFLECTED CEILING PLAN GENERAL NOTES:**
- CENTER ACOUSTICAL CEILING TILE GRID SYSTEM IN ROOM, EITHER WITH GRID CENTERED OR TILE CENTERED PER THE REFLECTED CEILING PLAN, UNLESS DIMENSIONED OR SHOWN TO ALIGN OTHERWISE.
  - CENTER LIGHTS IN HOST CEILING / SOFFIT SPACE UNLESS DIMENSIONED OTHERWISE.
  - PROVIDE MOISTURE-RESISTANT GYPSUM BOARD FOR CEILINGS IN ROOMS ARE PRONE TO ABOVE AVERAGE LEVELS OF HUMIDITY.
  - PROVIDE SOUND-ATTENUATING BATT INSULATION OVER CEILINGS PER WALL LEGEND.
  - PROVIDE DAMP-RATED LIGHTS IN RESTROOMS AND OTHER ROOMS PRONE TO ABOVE AVERAGE LEVELS OF HUMIDITY.
  - REFER TO MEP DRAWINGS FOR ALL EXISTING AND NEW COMPONENTS.
  - CONTRACTOR TO CONFIRM REQUIRED SHEATHING ALONG THE ENTIRE X-RAY WALL ASSEMBLY PRIOR TO GYPSUM BOARD FOR ANCHORING AND BRACING OF THE X-RAY EQUIPMENT AND ASSOCIATED COMPONENTS.

**1 RCP Legend and Notes**

Keynote Legend	
Key Value	Keynote Text
00.01	EXISTING CASEWORK AND COUNTERTOP TO BE RELOCATED FROM PREVIOUS DOCTOR'S OFFICE. CONTRACTOR TO INSTALL BACKING AS NEEDED.
00.02	COORDINATE EXACT LOCATION WITH THE OWNER PRIOR TO INSTALLATION.
00.03	ALIGN NEW WALL ASSEMBLY FINISH WITH EXISTING WALL ASSEMBLY FINISH.
00.04	FILING CASEWORK TO BE RELOCATED FROM PREVIOUS DOCTOR'S OFFICE. FINAL LOCATION TO BE DETERMINED BY OWNER PRIOR TO INSTALLATION.
00.04	INFILL TO MATCH EXISTING EXTERIOR WALL ASSEMBLY.
02.01	REMOVE DOOR PANEL, FRAME AND ASSOCIATED COMPONENTS.
02.02	REMOVE WALL PARTITION AND ASSOCIATED COMPONENTS.
02.03	REMOVE EXISTING CASEWORK AND ASSOCIATED COMPONENTS.
02.04	REMOVE PLUMBING FIXTURE AND ASSOCIATED COMPONENTS. REFER TO PLUMBING DRAWINGS.
02.05	REMOVE ROLL UP DOOR AND ASSOCIATED COMPONENTS.
03.01	NEW CMU WALL INFILL. SECURE AND SEAL TO EXISTING CMU OPENING. FINISH TO MATCH SURROUNDING FINISH AND COLOR. CONTRACTOR TO COORDINATE WITH OWNER.
08.01	EXISTING DOOR TO REMAIN LOCKED AT ALL TIMES.
08.02	CENTER FRAMED WALL OPENING ON WALL.
08.03	SIGNAGE FOR STAFF ONLY.
10.04	DENTAL UTILITY CENTER, TYPICAL FOR EACH EXAM ROOM.
10.05	WALL MOUNT XRAY, TYPICAL FOR EACH EXAM ROOM.
10.06	12'00 CABINET ON WHEELS, TYPICAL FOR EACH EXAM ROOM.
10.07	PANO XRAY.
10.08	OVERHEAD LIGHT TO BE RELOCATED FROM PREVIOUS DOCTOR'S OFFICE. CONTRACTOR TO COORDINATE STRUCTURAL REQUIREMENTS FOR OVERHEAD LIGHT PRIOR TO INSTALLATION.
10.14	EQUIPMENT TO BE PROVIDED BY OWNER.
10.15	VAC SYSTEM BY OWNER.
10.16	COMPRESSOR STATION BY OWNER.
22.01	FLOOR SERVICE SINK. REFER TO PLUMBING DRAWINGS.
23.01	EXHAUST VENT. SEE MECHANICAL DRAWINGS. FASTEN AND SEAL TO THE WALL. TOUCH UP WALL SURFACE TO MATCH EXISTING.
26.01	ELECTRICAL PANELS. COORDINATE LOCATION WITH OWNER AND ELECTRICAL DRAWINGS.

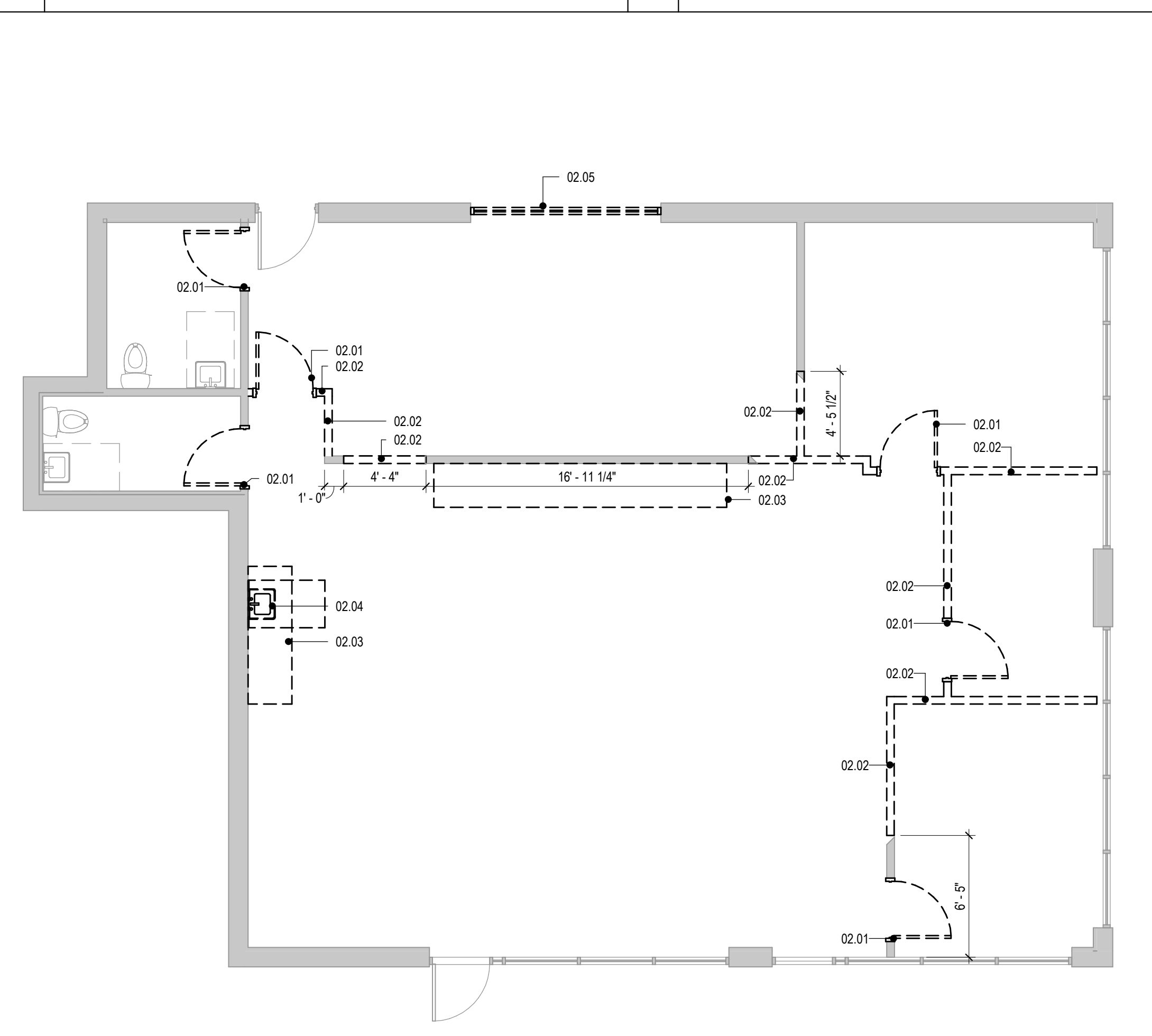
**6 Keynote Legend**

- EXISTING TO REMAIN
- DEMOLISHED COMPONENTS

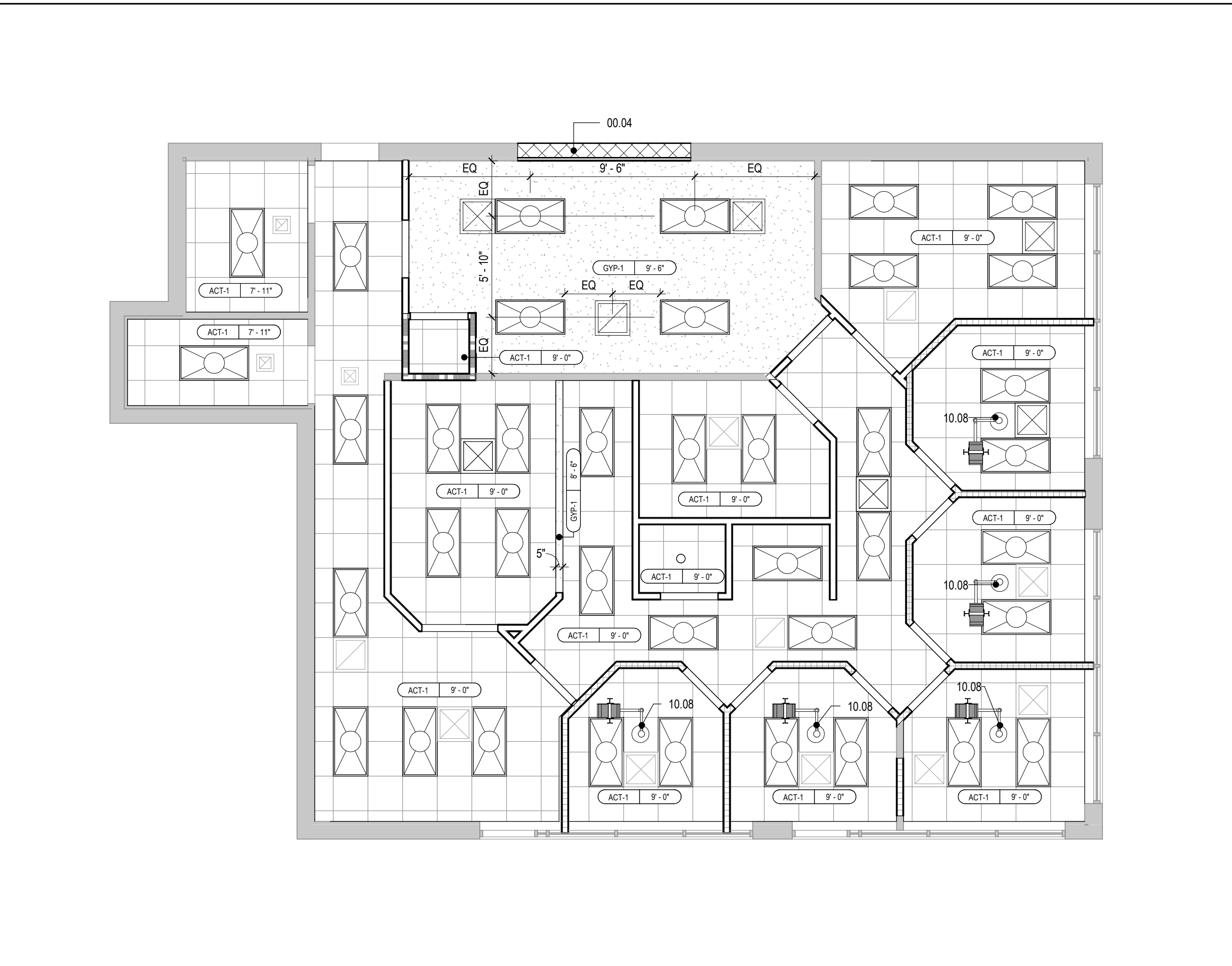
**4 Legend - Demolition**

- 1-Hour Fire-Rated Partition (3 5/8" Steel Stud)**  
5/8" GYPSUM BOARD ON EACH SIDE OF 3 5/8" STEEL STUDS. PROVIDE SOUND-ATTENUATING BATT INSULATION WHERE INDICATED ON PLANS. EXTEND ALL LAYERS 6" ABOVE THE HIGHEST ADJACENT CEILING PLAN. SEE UL-U423 AND UL DESIGN 1504 DETAIL 6/A6.1.
- Int. 3-5/8" Steel Framed with Gypsum Both Sides**  
(1) LAYERS OF 5/8" GYPSUM BOARD ON EACH SIDE OF 3 5/8" STEEL STUDS. EXTEND ALL LAYERS 6" ABOVE THE HIGHEST ADJACENT CEILING PLANE. PROVIDE BRACING AS REQUIRED.
- Int. 3-5/8" Steel Framed with Gypsum Both Sides (Sound Partition)**  
(1) LAYERS OF 5/8" GYPSUM BOARD ON EACH SIDE OF 3 5/8" STEEL STUDS. PROVIDE SOUND-ATTENUATING BATT INSULATION WHERE INDICATED ON PLANS. EXTEND ALL LAYERS TO HORIZONTAL ASSEMBLY OR ROOF ABOVE.

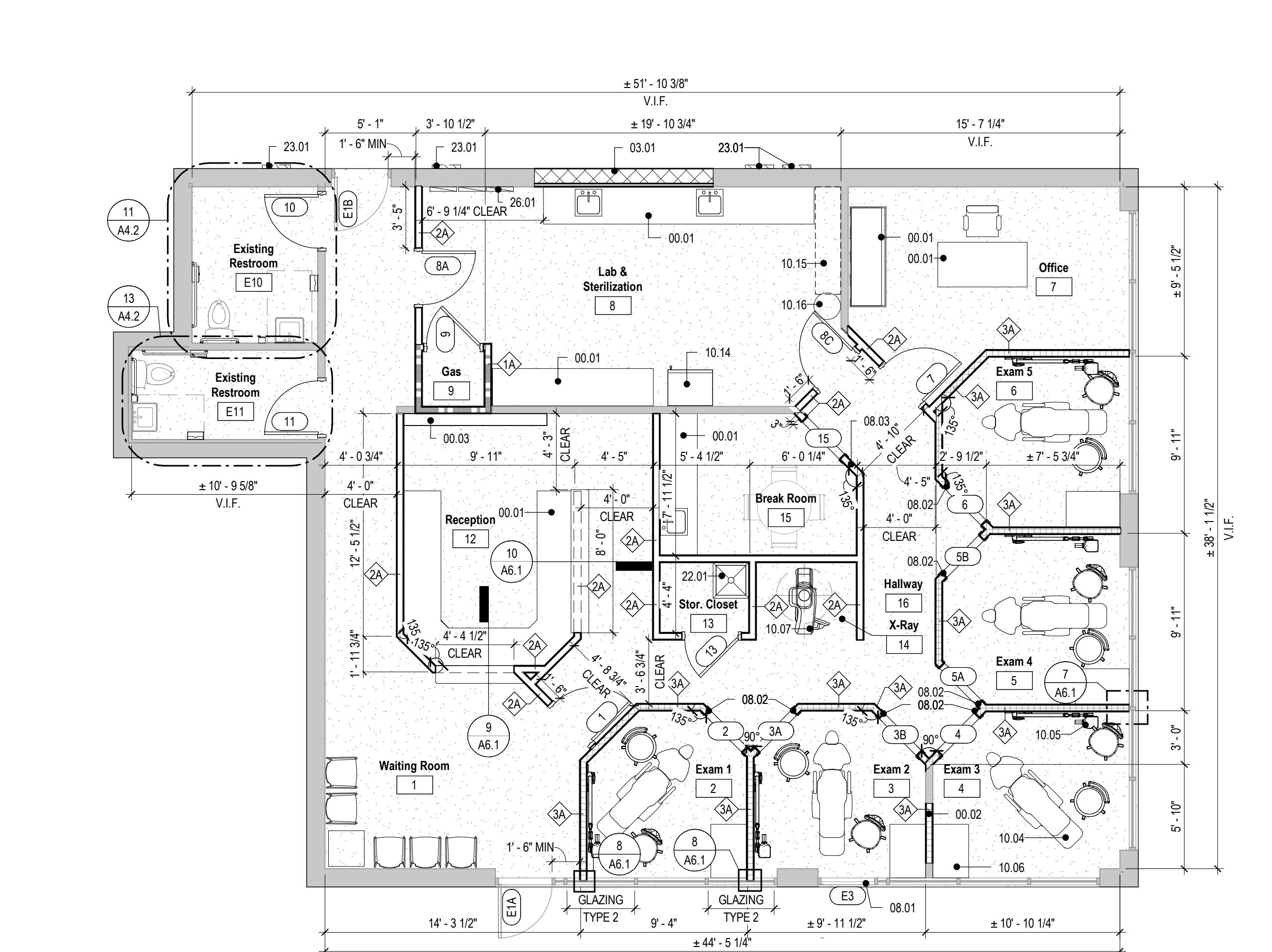
**5 Wall Legend**



**3 Demolition Plan - Level 1**  
3/16" = 1'-0"



**8 Reflected Ceiling Plan - Level 1**  
3/16" = 1'-0"



**7 Floor Plan - Level 1**  
3/16" = 1'-0"

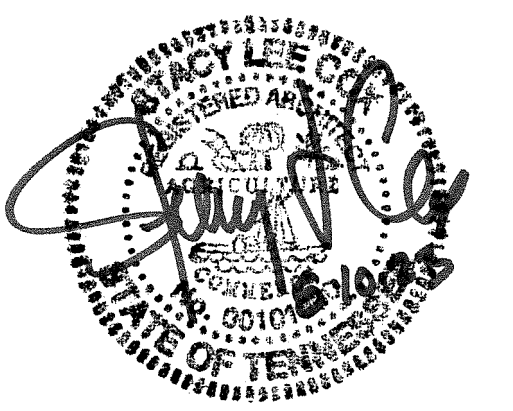
Date: 8/10/2023 10:01:14 AM  
 Drawn By: Author  
 Checked By: Checker  
 File: C:\Users\stamys\Documents\Local Models\23106\_Don Harrell DOS\_R22\_amyeta\TVCNK.rvt  
 © 2023 studio four design, inc. This drawing, its design detail and invention is the property of Studio Four Design, inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.



studio four design inc.  
architecture | interiors  
414 clinch avenue | knoxville, tn 37902  
865.523.5001 | studiofourdesign.com

Description of the Project for/at:  
**Don Harrell D.D.S.**

6701 Baum Drive Unit 165  
Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08.10.2023

Revisions		
No.	Description	Date

Job Number: 23106

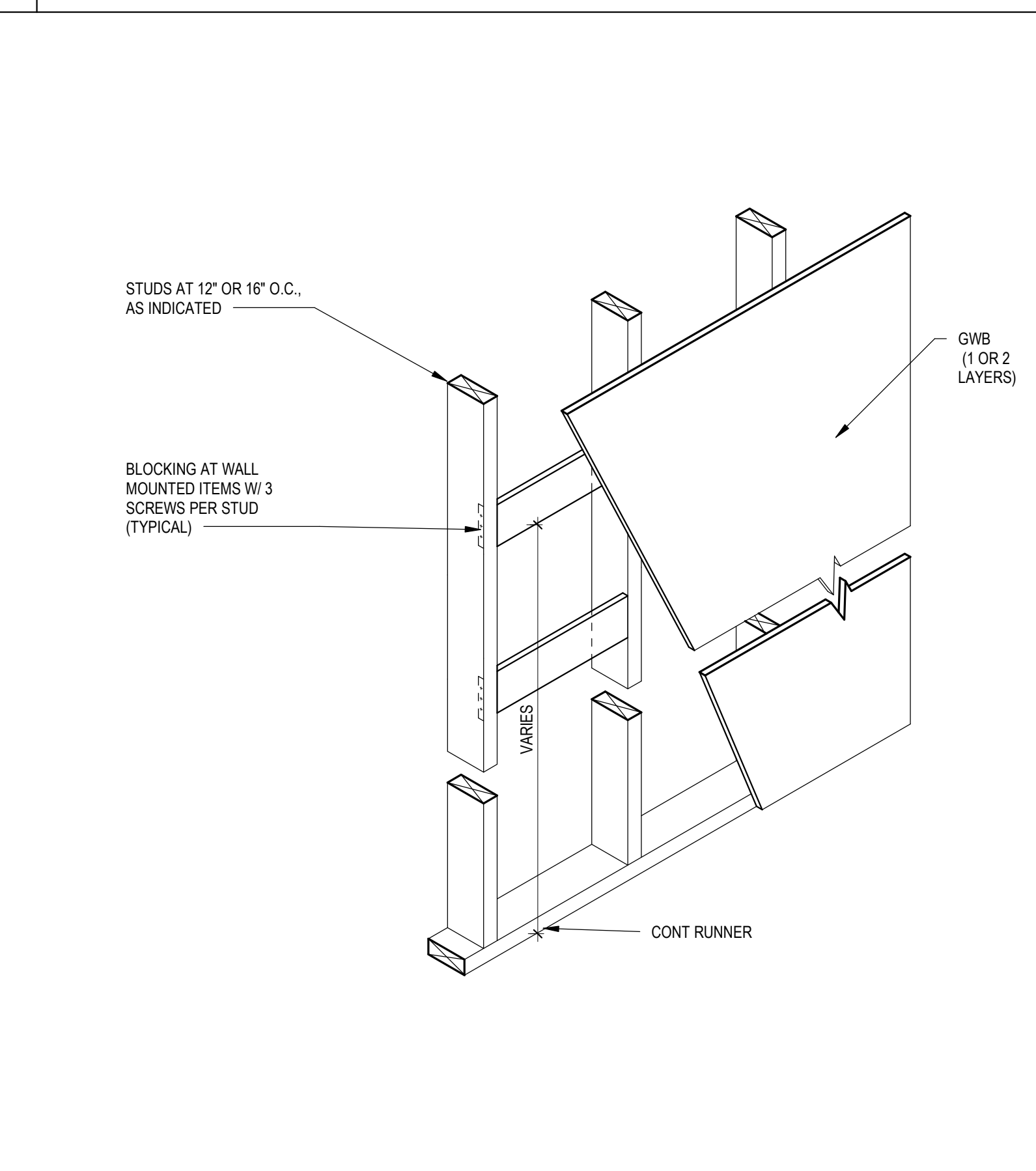
Finish Plan, Schedule, and Interior Details

**A4.1**

Finish Schedule							
Room Number	Room Name	Floor Finish	Base Finish	Wall Finish	Millwork	Ceiling Finish	Comments
1	Waiting Room	LVT 1	WD 1	PTD 1	--	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
2	Exam 1	LVT 1	RUB 1	PTD 1	--	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
3	Exam 2	LVT 1	RUB 1	PTD 1	--	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
4	Exam 3	LVT 1	RUB 1	PTD 1	--	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
5	Exam 4	LVT 1	RUB 1	PTD 1	--	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
6	Exam 5	LVT 1	RUB 1	PTD 1	--	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
7	Office	CPT 1	RUB 1	PTD 1	--	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
8	Lab & Sterilization	LVT 1	RUB 1	PTD 1	ALL MILLWORK RELOCATED FROM PREVIOUS DENTAL OFFICE	GYP	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
9	Gas	LVT 1	RUB 1	PTD 1	--	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
12	Reception	LVT 1	WD 1	PTD 1	ALL MILLWORK RELOCATED FROM PREVIOUS DENTAL OFFICE	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
13	Stor. Closet	LVT 1	RUB 1	PTD 1	--	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
14	X-Ray	LVT 1	WD 1	PTD 1	--	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
15	Break Room	LVT 1	RUB 1	PTD 1	ALL MILLWORK RELOCATED FROM PREVIOUS DENTAL OFFICE	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
16	Hallway	LVT 1	WD 1	PTD 1	--	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
E10	Existing Restroom	PT 1	RUB 1	PTD 1	--	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.
E11	Existing Restroom	PT 1	RUB 1	PTD 1	--	ACT	ALL FINAL FINISH SELECTIONS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION.

Finish Index										
Material Code	Material Name	Manufacturer	Collection	Product Number	Product Name	Size	Color Number	Color Name	Installation Method	Comments
FLOOR FINISH										
CPT 1	CARPET	--	--	--	--	--	--	--	--	TO BE SELECTED BY OWNER
LVT 1	LUXURY VINYL TILE	--	--	--	--	--	--	--	--	TO BE SELECTED BY OWNER
PT 1	PORCELAIN FLOOR TILE	--	--	--	--	--	--	--	GROUT LINES TO ALIGN WITH WALL & BASE	TO BE SELECTED BY OWNER
TRIM & BASE FINISH										
RUB 1	RUBBER BASE	--	--	--	--	--	--	--	PRE-FORMED CORNERS & ROLLS TO BE USED	TO BE SELECTED BY OWNER
WD 1	WOOD BASE	--	--	--	--	--	--	--	GROUT LINES TO ALIGN WITH FLOOR & BASE	TO BE SELECTED BY OWNER
WALL FINISH										
PTD 1	PAINT	--	--	--	--	--	--	--	--	ALL WALLS UNLESS NOTED OTHERWISE, TO BE SELECTED BY OWNER
MILLWORK FINISH										
PLAM 1	PLASTIC LAMINATE	--	--	--	--	--	--	--	--	TO BE SELECTED BY OWNER
CEILING FINISH										
ACT	ACOUSTIC CEILING TILE	--	--	--	--	--	--	--	--	TO BE SELECTED BY OWNER
GYP	GWB CEILING - PAINTED	--	--	--	--	--	--	--	--	TO BE SELECTED BY OWNER

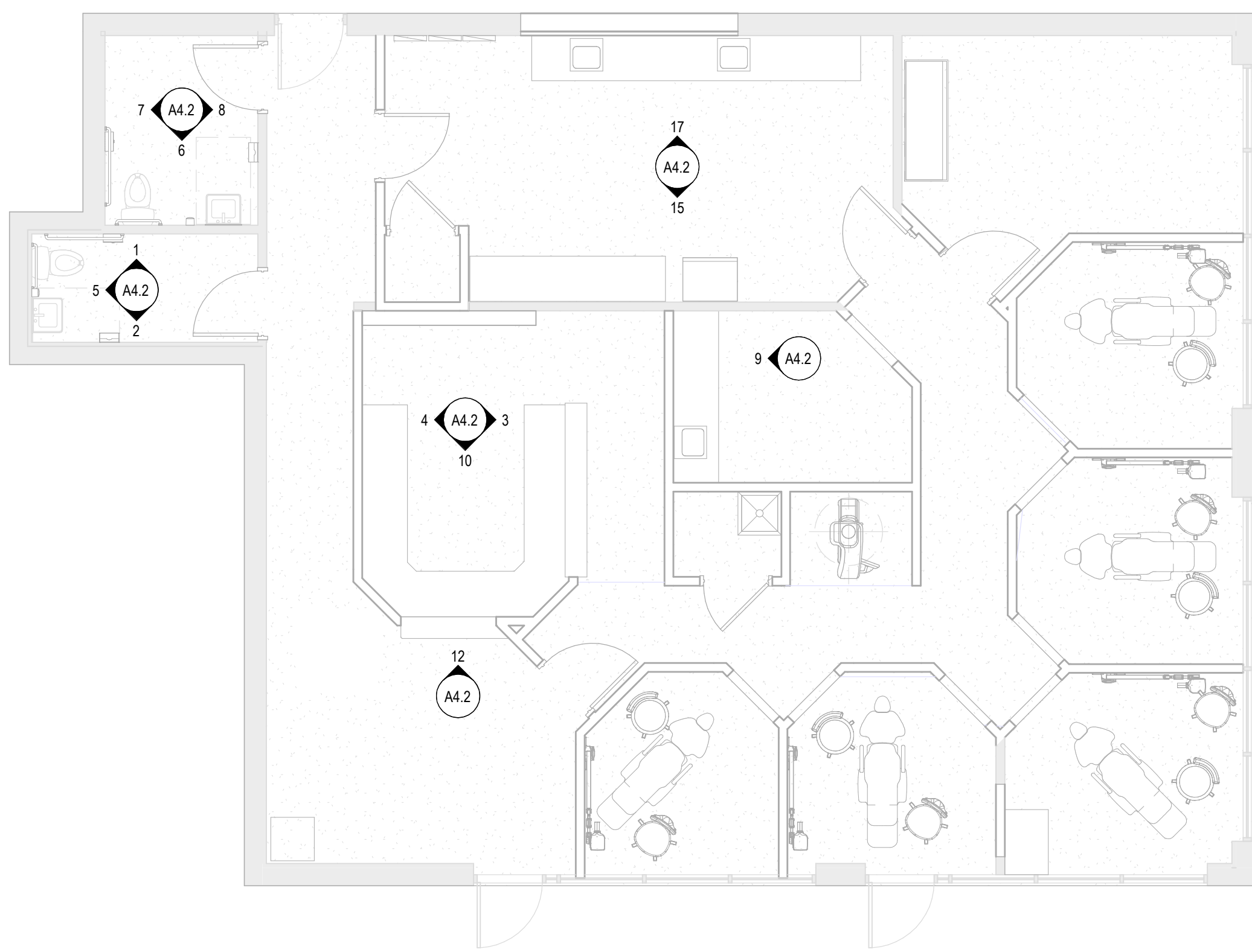
**3 Finish Index and Schedule**



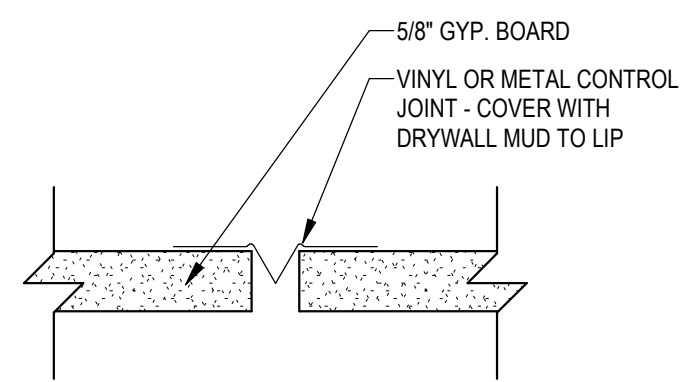
- REFER TO GENERAL NOTES ON G0.0
- GENERAL CONTRACTOR AND/OR SUBCONTRACTOR TO VERIFY LEAD TIMES AT TIME OF BIDDING.
- GENERAL CONTRACTOR TO FIELD VERIFY EXISTING WALL, FLOOR, AND CEILING CONDITIONS PRIOR TO CONSTRUCTION. ALL WALL PREP, FLOOR PREP, AND REQUIRED ADDITIONAL PREP TO RECEIVE SPECIALTY FINISHES SHALL BE INCLUDED IN THE SCOPE OF WORK.
- GYPSON BOARD CONTROL AND EXPANSION JOINTS ARE TO BE INSTALLED AS REQUIRED BY THE U.S. GYPSON ASSOCIATION.
- DRYWALL SUBCONTRACTOR TO REFER TO MANUFACTURER'S RECOMMENDATIONS FOR LEVEL OF FINISH REQUIRED, TO RECEIVE SCHEDULED SPECIALTY FINISHES.
- ALL GRILLES / VENTS MOUNTED TO WALLS / SOFFITS & FASCIA TO BE PAINTED TO MATCH ADJACENT WALL OR CEILING COLOR, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL CONTACT THE ARCHITECT IMMEDIATELY UPON DISCOVERY OF DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS.
- FILL ALL FINISH NAIL HOLES WITH MATCHING FILLER, TYPICAL.
- ALL FLOOR TILE TO BE INSTALLED PER TCNA F128-12 AND TCNA EJ171.
- ALL WALL TILE TO BE INSTALLED PER TCNA 1243-12.
- GROUT JOINTS SHALL BE 1/8" FOR RECTIFIED TILE OR 3/16" FOR CALIBRATED (NON-RECTIFIED) TILE.
- ALL TRANSITIONS TO OCCUR AT THE CENTERLINE OF THE DOOR UNLESS SHOW OTHERWISE. ALL FLOOR TRANSITIONS TO BE LEVEL AND FLUSH.
- CONTRACTOR SHALL SUBMIT TO THIS OFFICE ACTUAL SAMPLES, IN DUPLICATE, OF EACH COLOR AND MATERIAL SELECTED BY THE DESIGNER FOR THE DESIGNER'S VERIFICATION AND APPROVAL NO LATER THAN TWO (2) WEEKS FROM DATE OF CONTRACT. SAMPLES SHALL BE PROPERLY LABELED BY PROJECT AND CODE.
- RESILIENT TILE FLOORING TO BE INSTALLED WITH STRIATIONS RUNNING IN THE SAME DIRECTION, UNLESS OTHERWISE NOTED.
- SHEET VINYL FLOORING TO BE INSTALLED WITH CHEMICALLY WELDED SEAMS. SEE SPECIFICATION MANUAL FOR MANUFACTURER RECOMMENDED SEAM SEALER. SEE SPECIFICATION MANUAL FOR INSTALLATION INSTRUCTIONS AT FLOOR DRAINS. THIS IS A NO WAX PRODUCT, AVAILABLE IN 6', 9', 12' WIDTHS, USE WIDEST WIDTH AS NECESSARY FOR LEAST AMOUNT OF SEAMING. SHEET VINYL SHALL BE QUARTER TURNED IN CORRIDORS TO AVOID EXCESSIVE SEAMING. CONSTRUCTION DETAIL LINE TO REPRESENT PROPOSED SEAM LOCATION.
- ANY LOCATION WHERE ACCENT WALL PAINT DOES NOT TERMINATE AT WALL CORNER WILL REQUIRE A GWB REVEAL.
- ALL COUNTERTOP SUPPORT BRACKETS SHALL BE PAINTED TO MATCH ADJACENT WALL.
- PAINT ALL SURFACES EXPOSED TO VIEW UNLESS FULLY FACTORY FINISHED OR NOTED/SCHEDULED OTHERWISE. CONTRACTOR SHALL CONTACT THE ARCHITECT IF THE FINISHING REQUIREMENTS OF A COMPONENT ARE UNCLEAR.
- ALL FINISHES TO EXTEND T.O. WALL BASE TO B.O. CEILING AND WALL CORNER TO WALL CORNER U.N.O.
- CONTRACTOR SHALL CONTACT THE ARCHITECT IMMEDIATELY FOR VERIFICATION UPON DISCOVERY OF DISCREPANCIES BETWEEN THE DRAWINGS AND SCHEDULE.

**2 Typical Blocking Detail**  
1" = 1'-0"

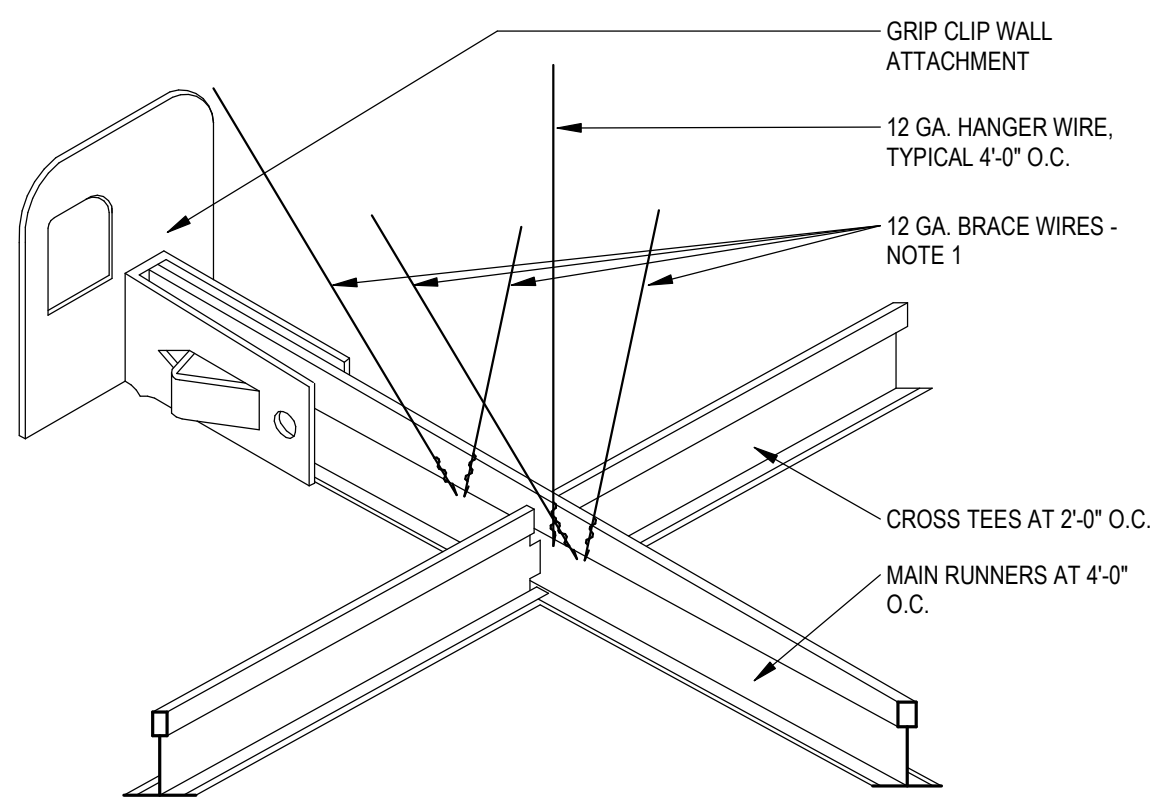
**1 General Finish Notes**



**8 Finish Floor Plan - Level 1**  
3/16" = 1'-0"

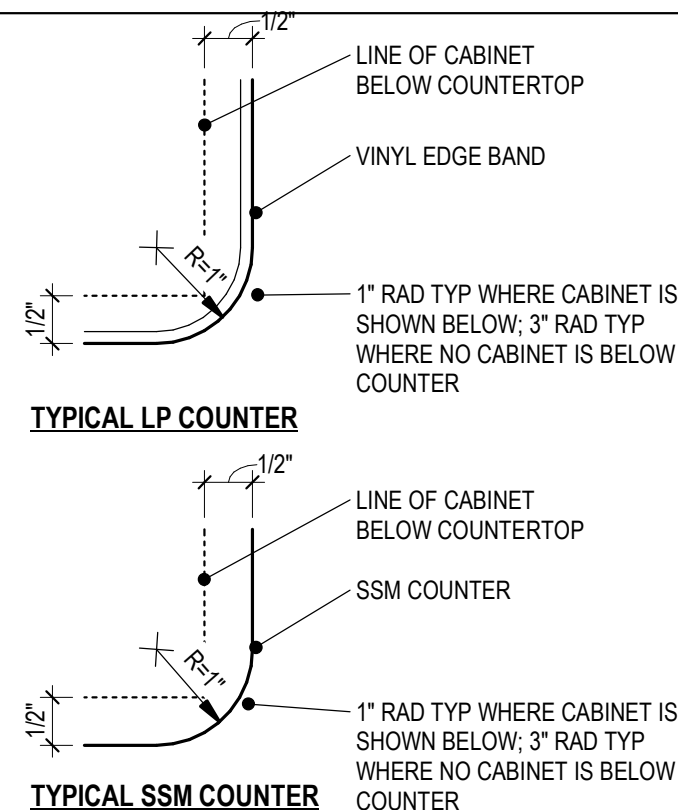


**7 Typical Control Joint Detail**  
6" = 1'-0"

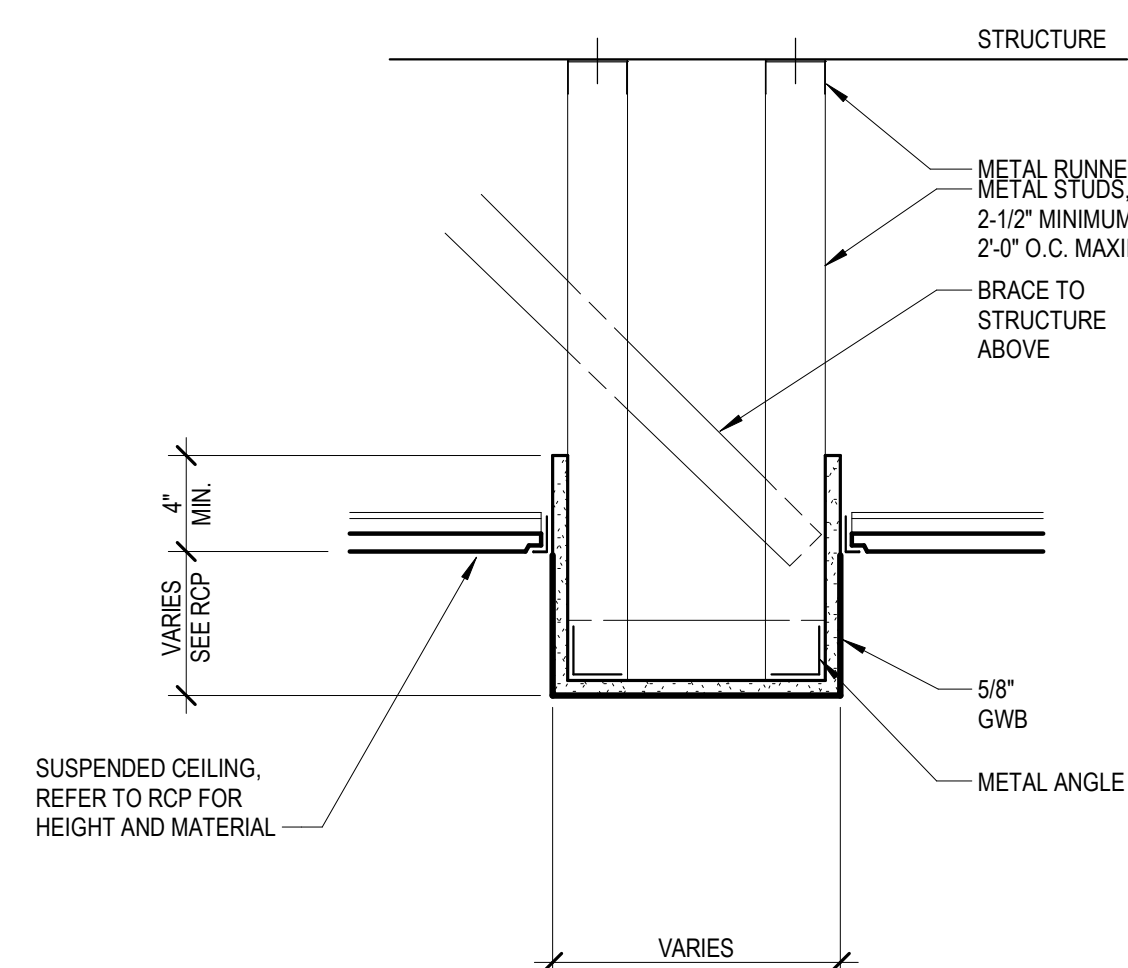


- NOTES:
- BRACING WIRES TO BE ATTACHED AT A MAXIMUM OF 45 DEGREES TO THE PLANE OF THE CEILING AND PARALLEL TO COMPONENTS INTERSECTING AT THE BRACE LOCATION. BRACE WIRES TO BE TAUT AND TIED BOTH ENDS WITH A MINIMUM THREE TIGHT WRAPS.
  - GRID BRACING ASSEMBLY 10'-0" O.C. MAX. 3. CROSS RUNNERS SHALL BE ATTACHED WITH MECHANICAL INTERLOCKING CONNECTORS.
  - GRIP CLIP WALL ATTACHMENT SHALL BE USED TO JOIN ALL MAIN BEAMS OR CROSS TEES TO WALL MOLDING VIA LOCKING BARBS WITHOUT POP RIVETS OR SCREWS.

**6 Typical ACT Seismic Detail**  
1" = 1'-0"



**5 Typical Counter Edge Details**  
6" = 1'-0"



**4 Gypsum Bulkhead Detail**  
1 1/2" = 1'-0"

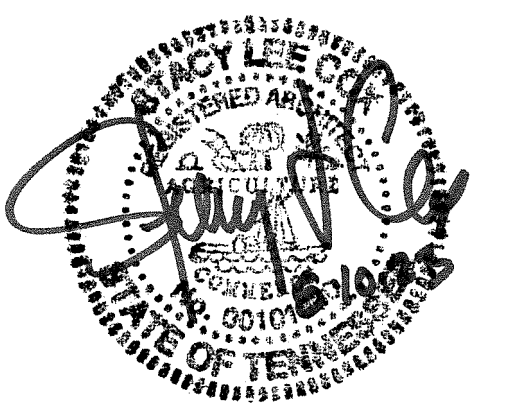
Date: 8/10/2023 10:01:16 AM  
Drawn By: Author  
Checked By: Checker  
File: C:\Users\amyers\Documents\Local Models\23106\_Don Harrell DDS\_R22\_amaeystVCKNK.rvt

© 2023 studio four design, inc.  
This drawing, its design detail and invention is the property of Studio Four Design, inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.



studio four design inc.  
architecture | interiors  
414 clinch avenue | knoxville, tn 37902  
865.523.5001 | studiofourdesign.com

Description of the Project for/at:  
**Don Harrell D.D.S.**  
6701 Baum Drive Unit 165  
Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08.10.2023		
Revisions		
No.	Description	Date

Job Number: 23106

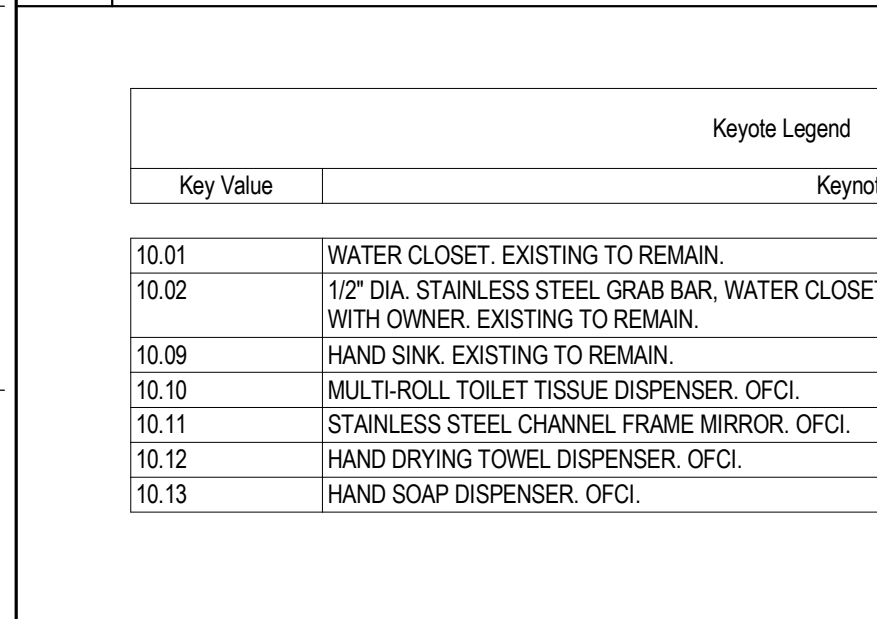
Enlarged Plans and Interior Elevations

**A4.2**

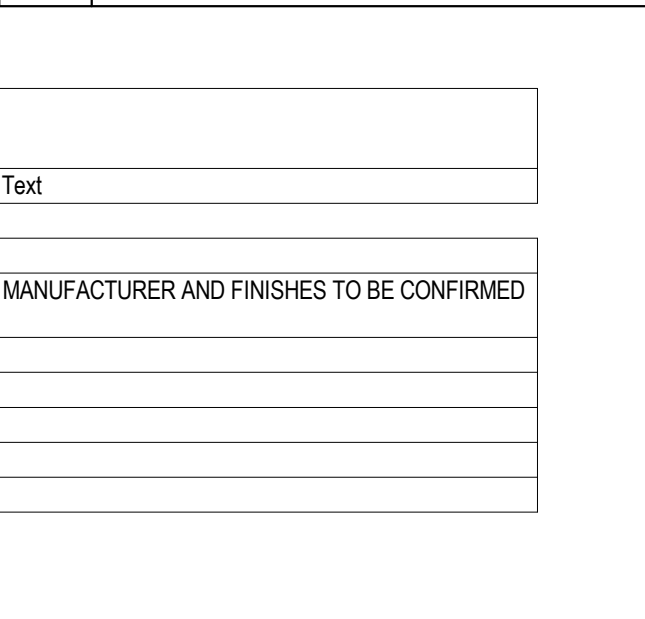
Date: 8/10/2023 10:01:17 AM  
Checked By: Checker  
Drawn By: Author  
File: C:\Users\amyers\Documents\Local Models\23106\_Don Harrell DDS\_R22\_ama\INTV02NK.rvt

© 2023 studio four design, inc.  
This drawing, its design detail and invention is the property of Studio Four Design, inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.

**12 Int Elev Check In**  
3/8" = 1'-0"

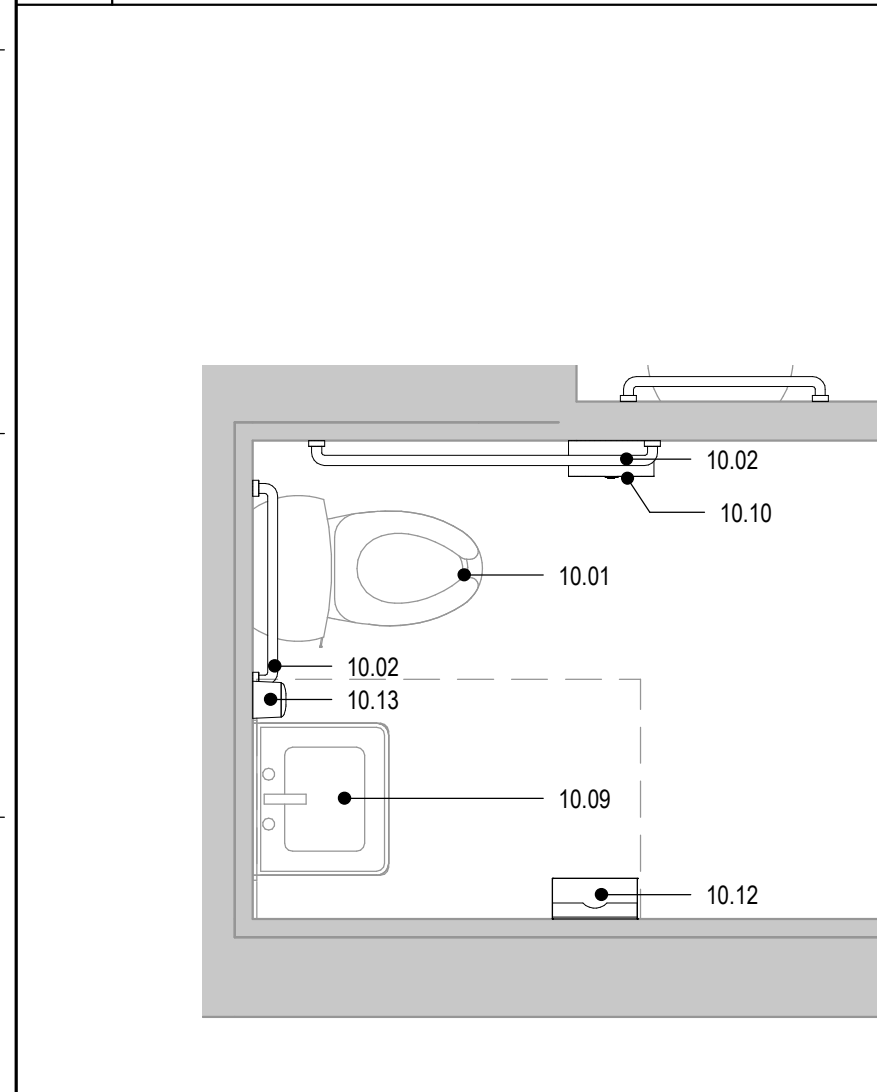


**15 Int Elev Lab Counter**  
3/8" = 1'-0"

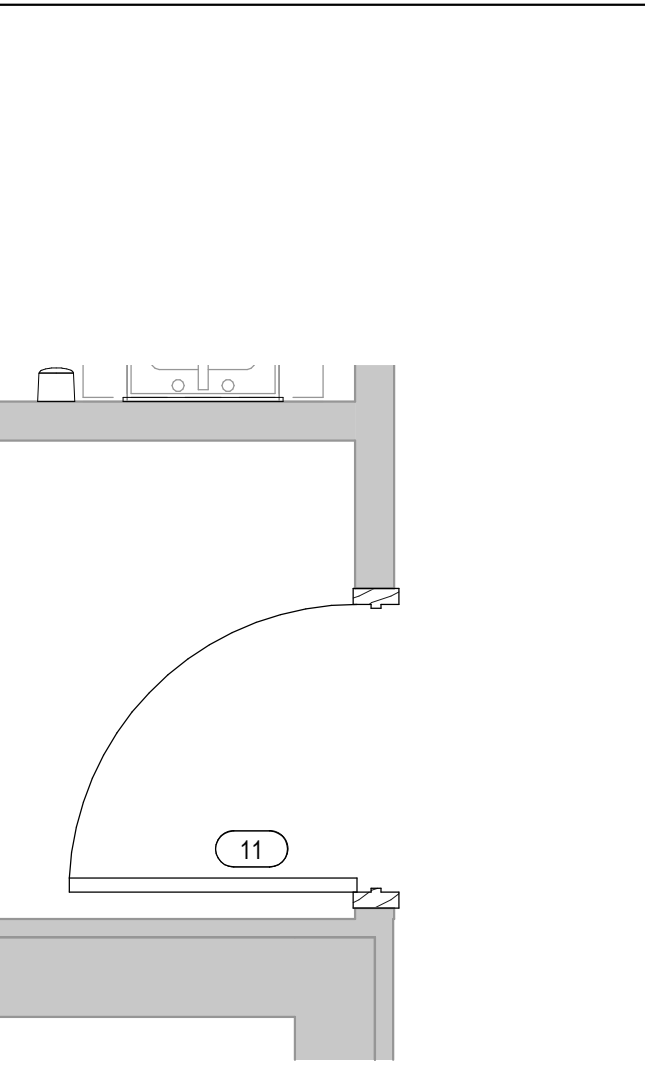


- PROVIDE FINISHED END PANELS WHERE CASEWORK DOES NOT ABUT WALL.
- PROVIDE FILLER BETWEEN CABINET AND WALL CONSTRUCTION. EXTEND COUNTERTOPS TO FINISHED WALL. SEE CASEWORK DETAILS.
- FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION.
- SCRIBE FILLER PIECE TO SOFFIT AND WALL (TYP.), SEE CASEWORK DETAILS.
- PROVIDE GROMMETS IN COUNTERTOPS ABOVE ELECTRICAL AND COMMUNICATION OUTLETS. COORDINATE EXACT LOCATIONS WITH OWNER.
- SEE SHEET INTERIOR FINISH INDEX SHEET FOR ADDITIONAL FINISH INFORMATION.
- WALL BASE TO BE INSTALLED ON TOE KICK OF BASE CABINETS AND CONTINUE ALONG ALL EXPOSED EDGES OF CASEWORK U.N.O.
- CONTRACTOR TO CONFIRM ADEQUATE BLOCKING IS INSTALLED IN THE ADJACENT WALL ASSEMBLY FOR RELOCATED CASEWORK AND MILLWORK FROM PREVIOUS DENTIST'S OFFICE.

**14 Restroom Keynotes**



**12 General Casework Notes**



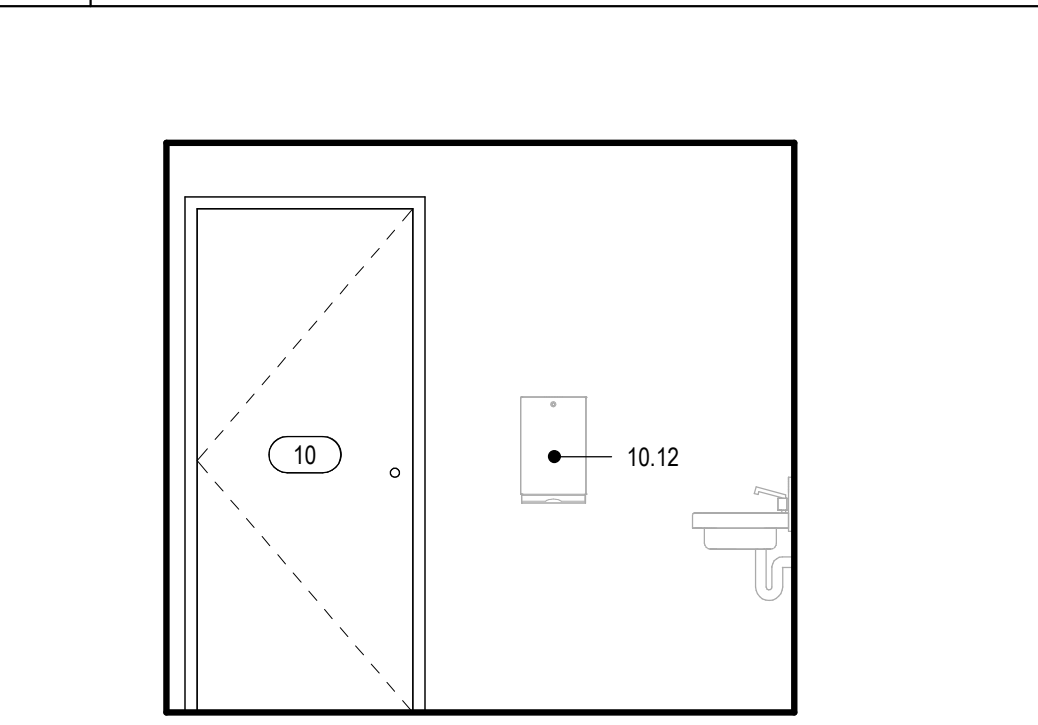
**13 Enlarged Plan\_Non-ADA Restroom E11**  
1/2" = 1'-0"

**11 Enlarged Plan\_ADA Restroom E10**  
1/2" = 1'-0"

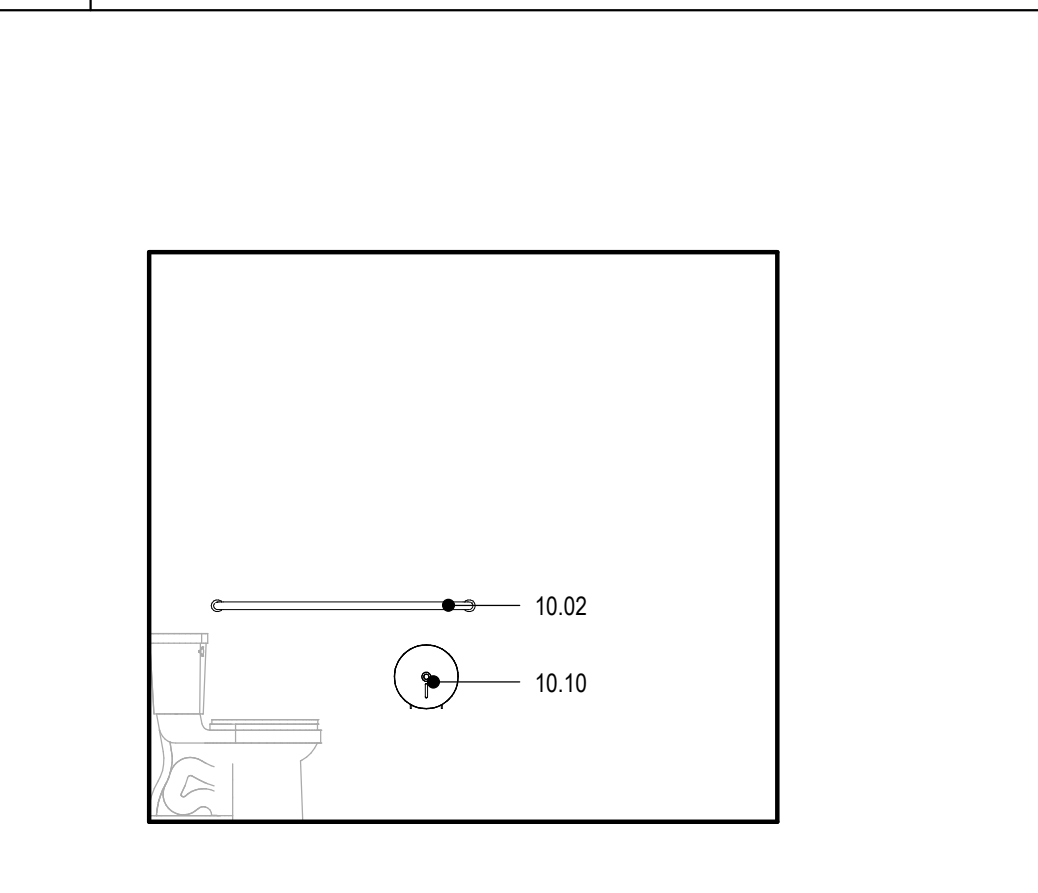
**7 Int Elev Restroom E10 West**  
3/8" = 1'-0"



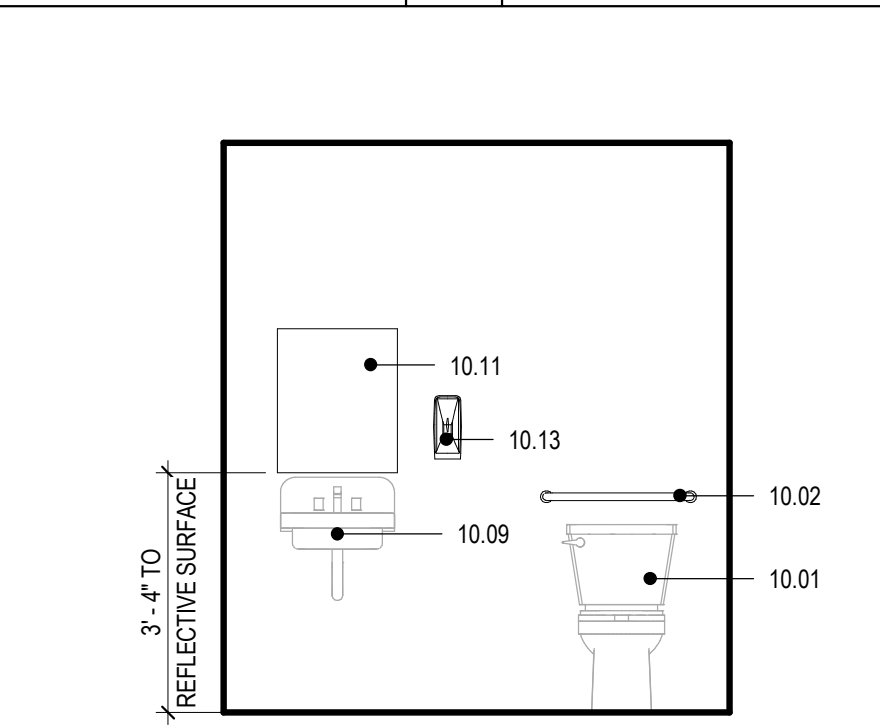
**9 Int Elev Break Room**  
3/8" = 1'-0"



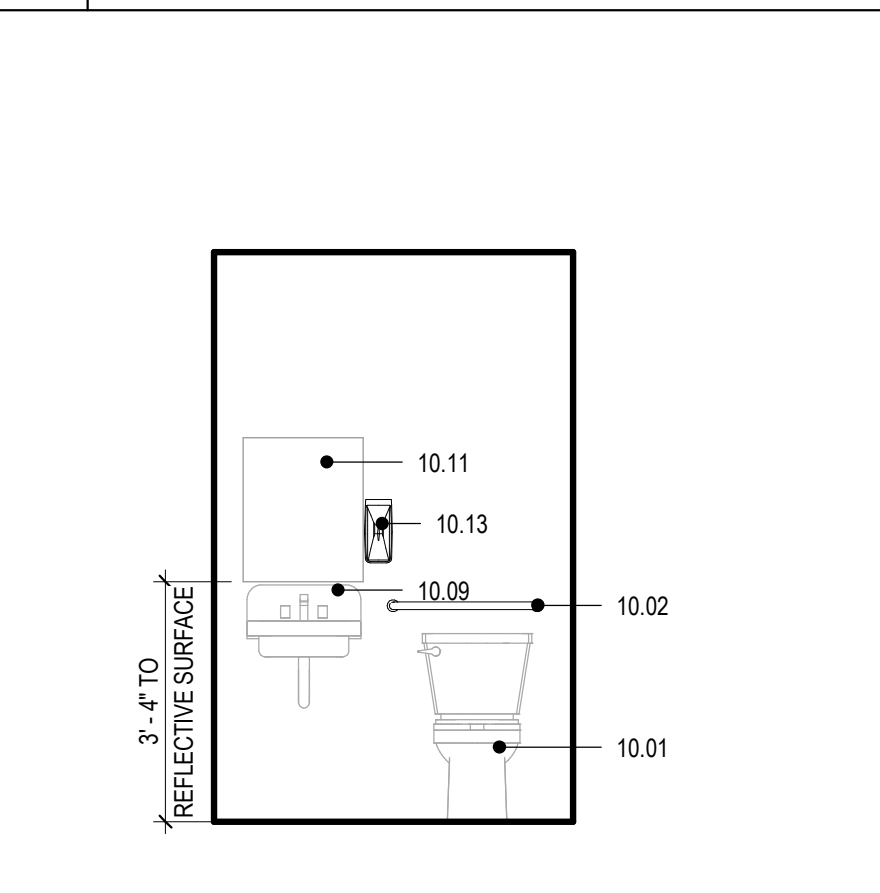
**8 Int Elev Restroom E10 East**  
3/8" = 1'-0"



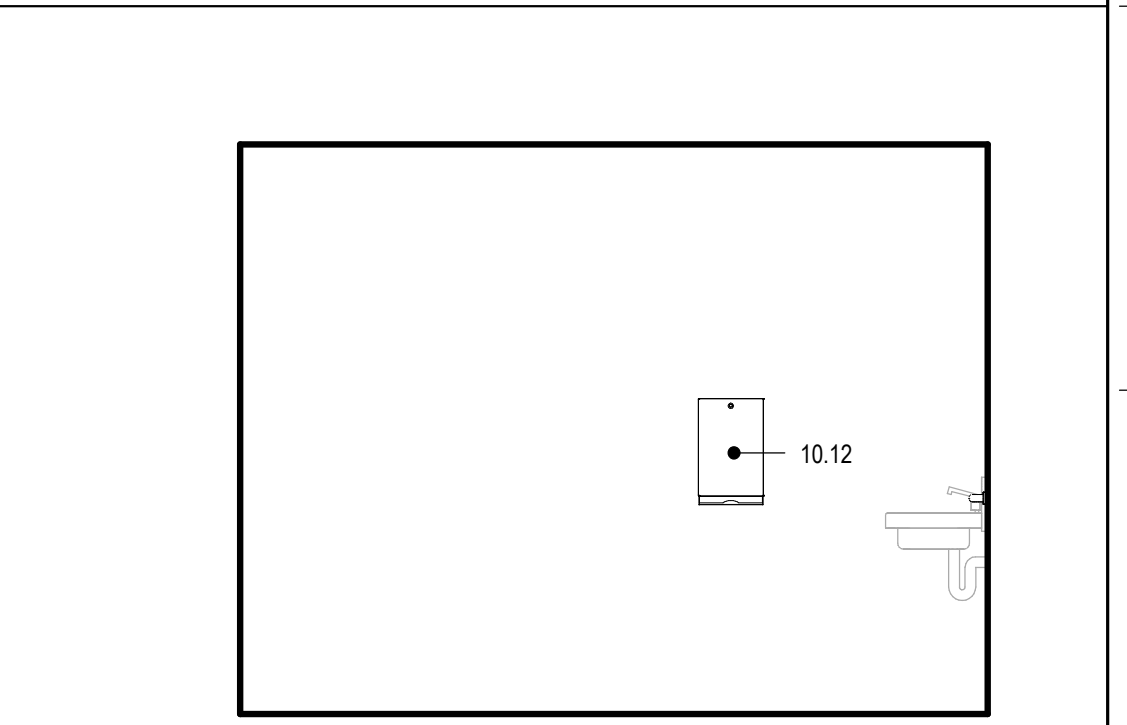
**3 Int Elev Reception East**  
3/8" = 1'-0"



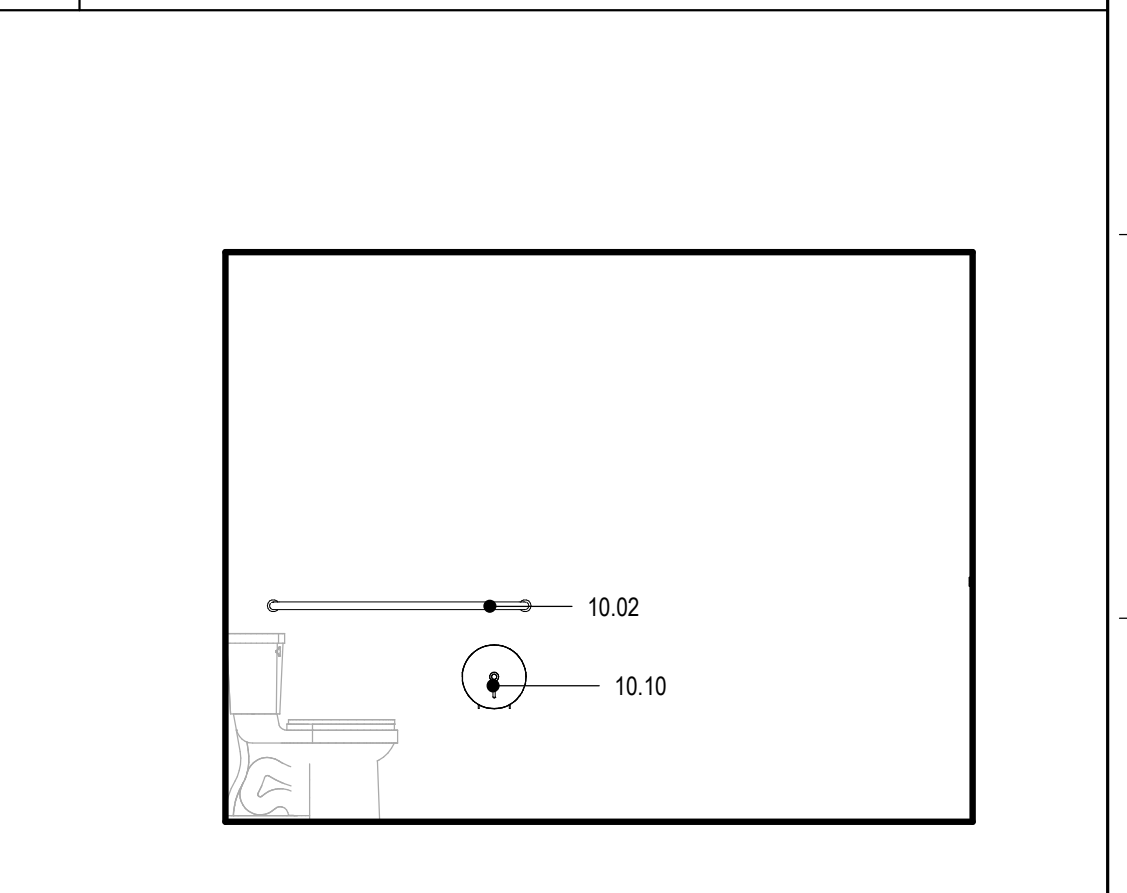
**6 Int Elev Restroom E10 South**  
3/8" = 1'-0"



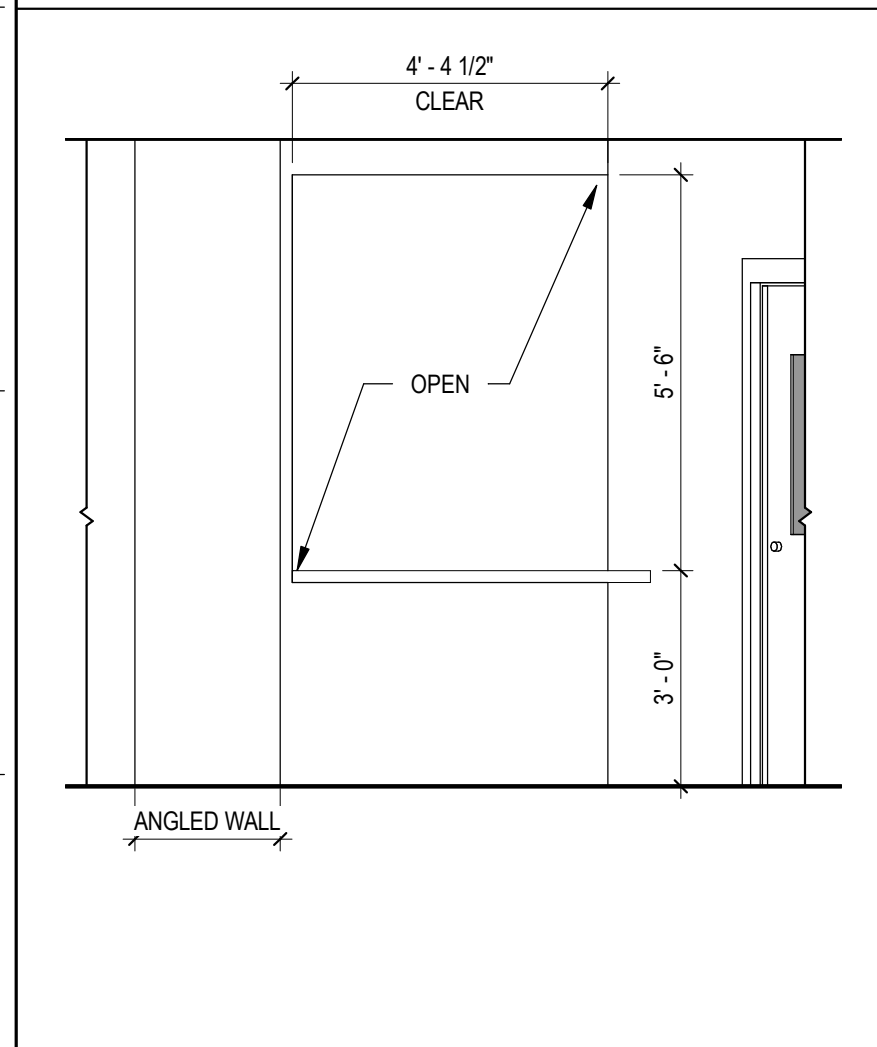
**4 Int Elev Reception West**  
3/8" = 1'-0"



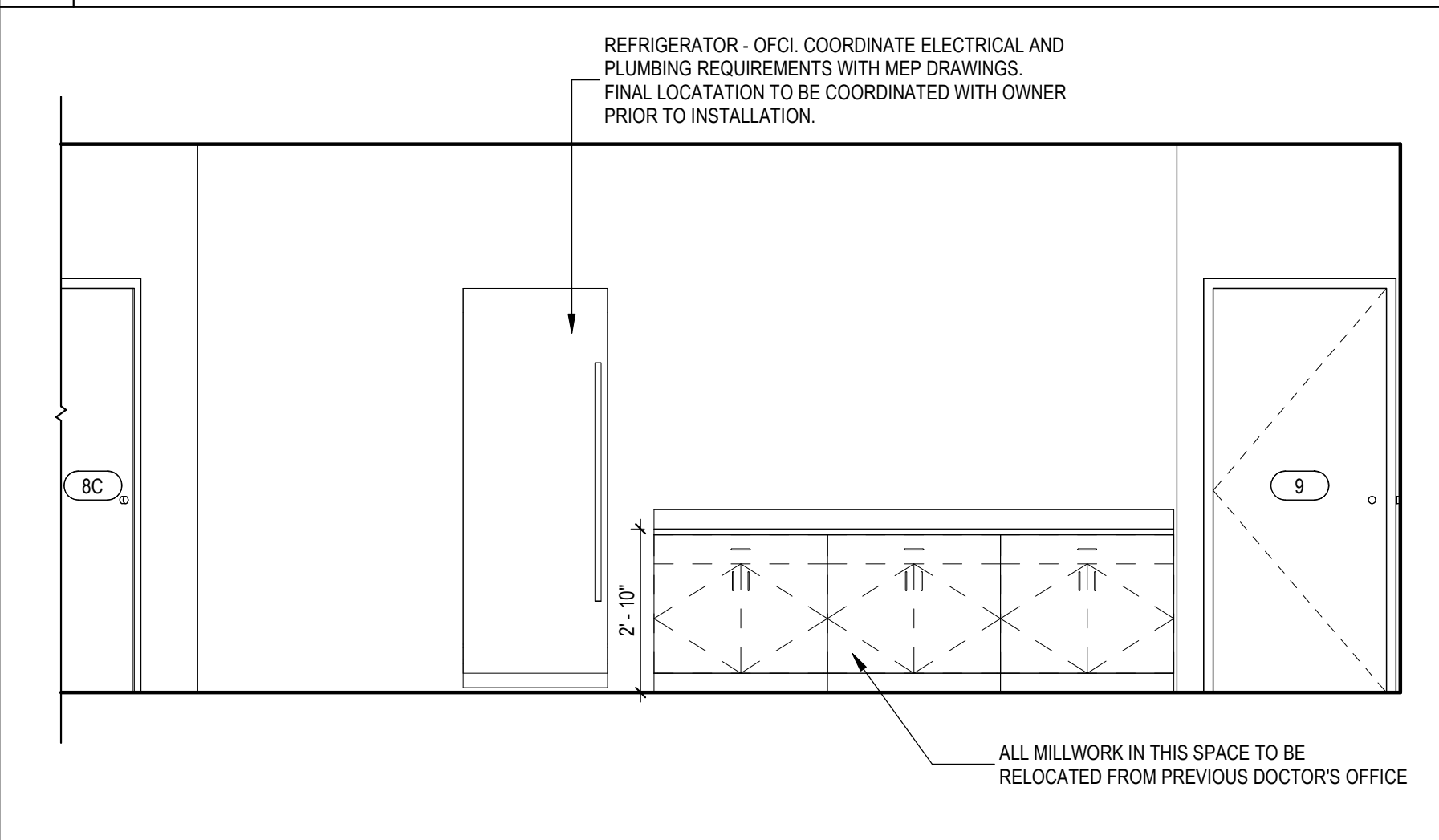
**2 Int Elev Restroom E11 South**  
3/8" = 1'-0"



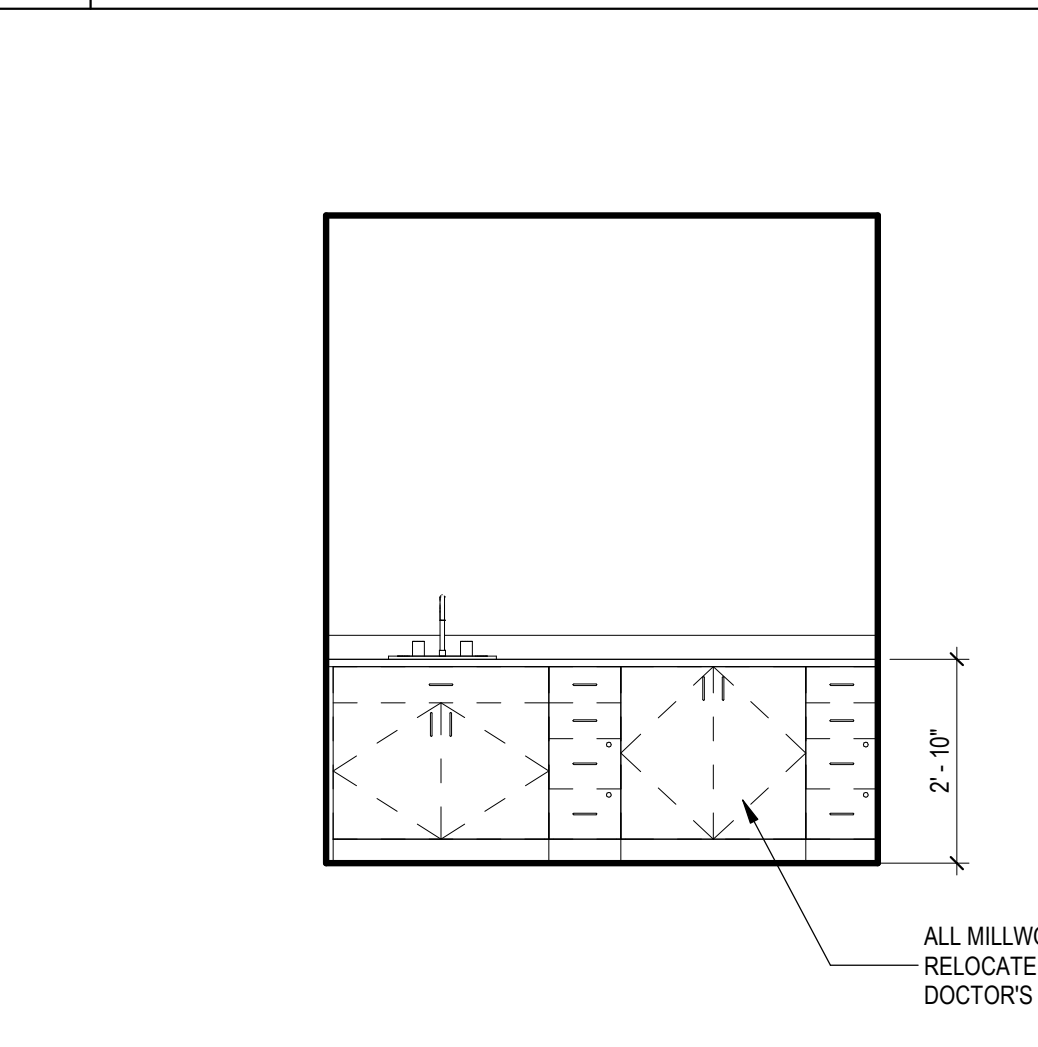
**17 Int Elev Lab Sink Wall**  
3/8" = 1'-0"



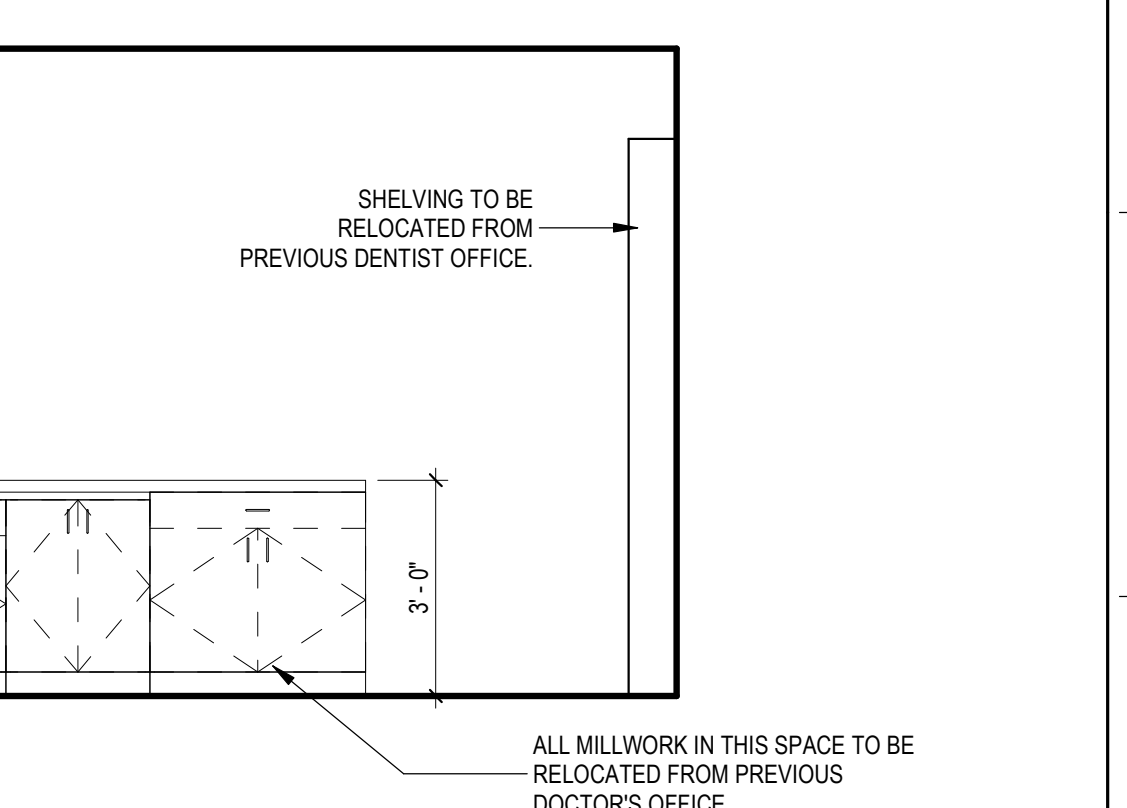
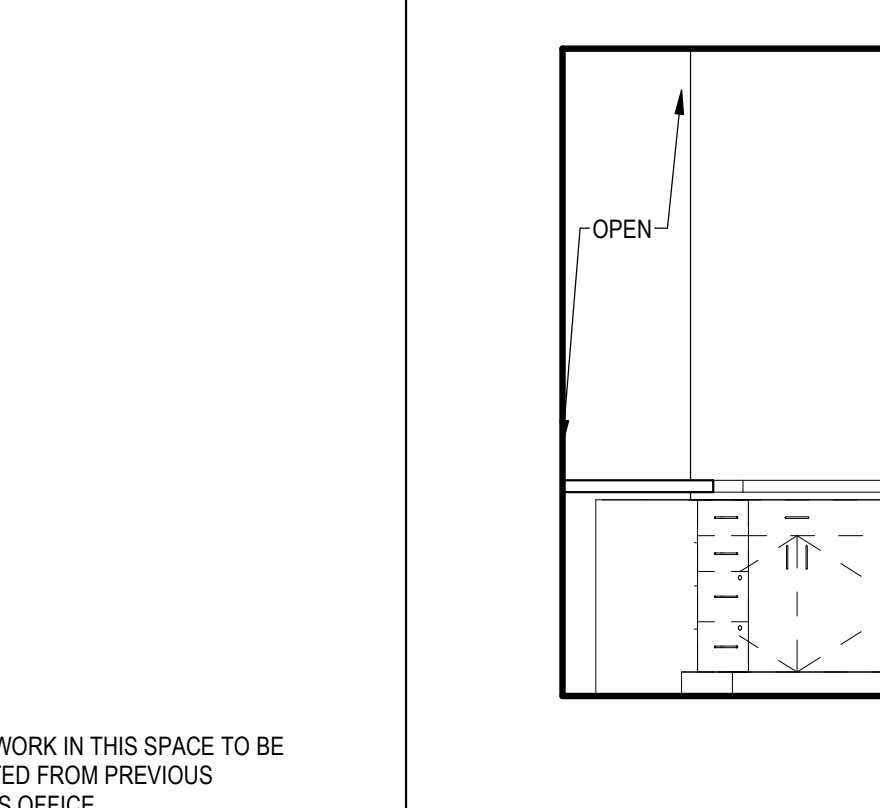
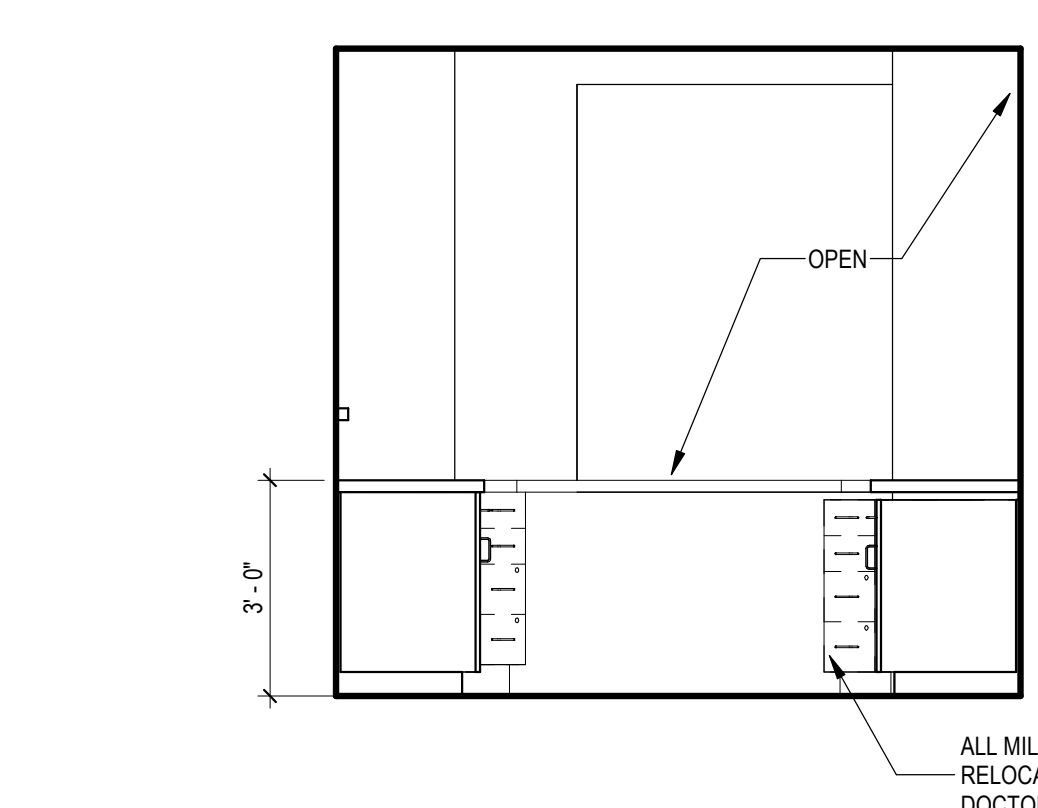
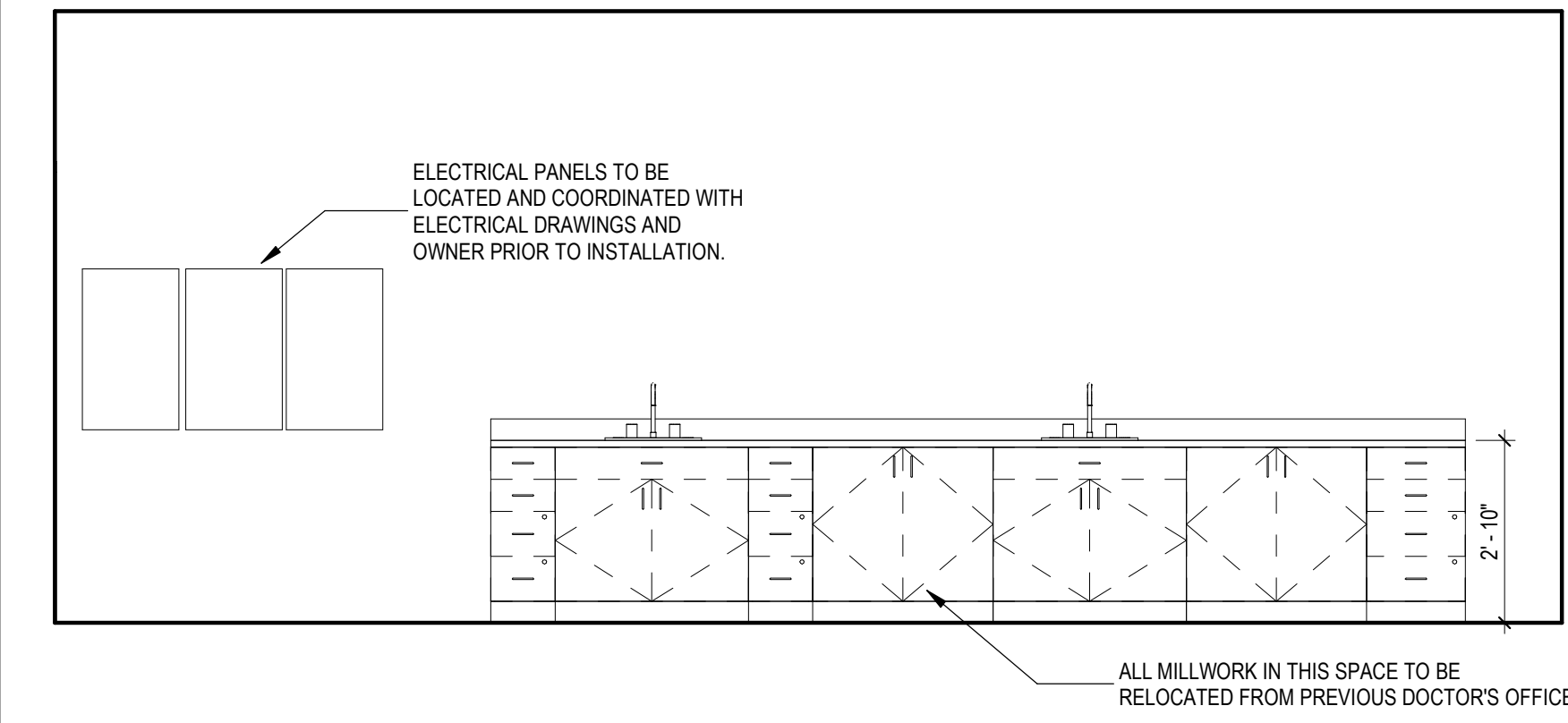
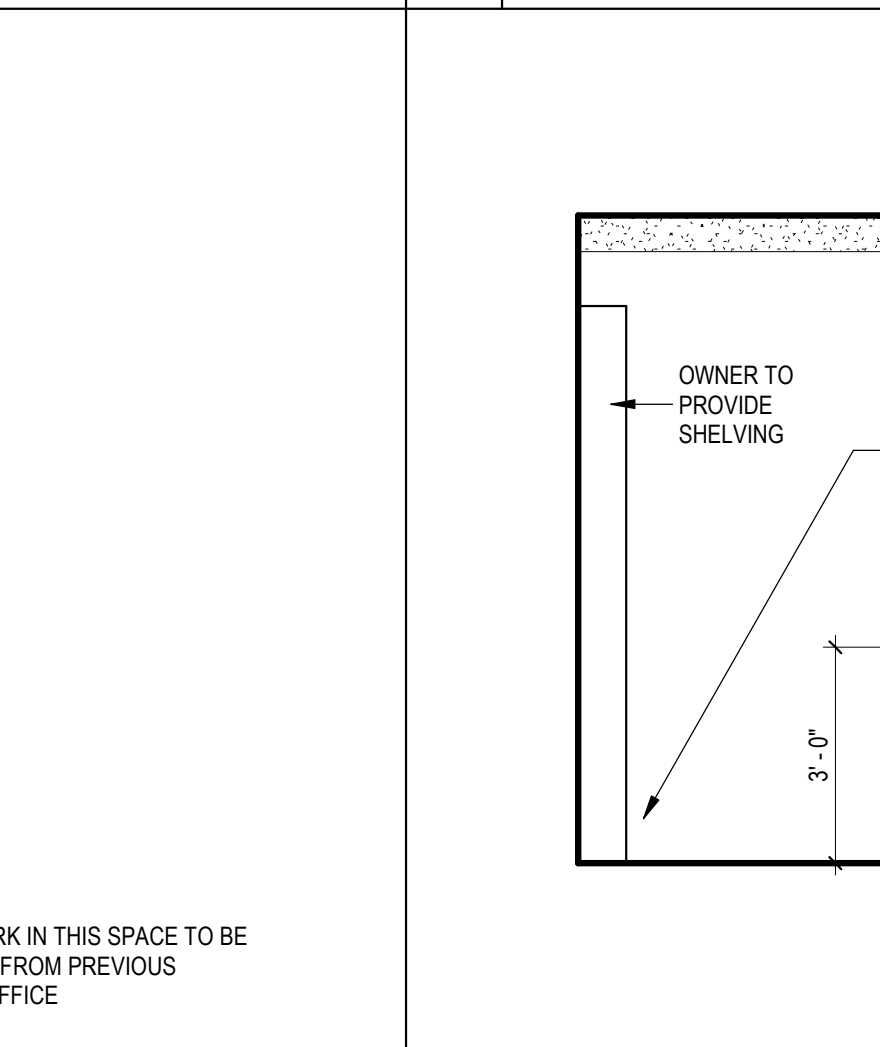
**10 Int Elev Reception South**  
3/8" = 1'-0"



**4 Int Elev Reception West**  
3/8" = 1'-0"



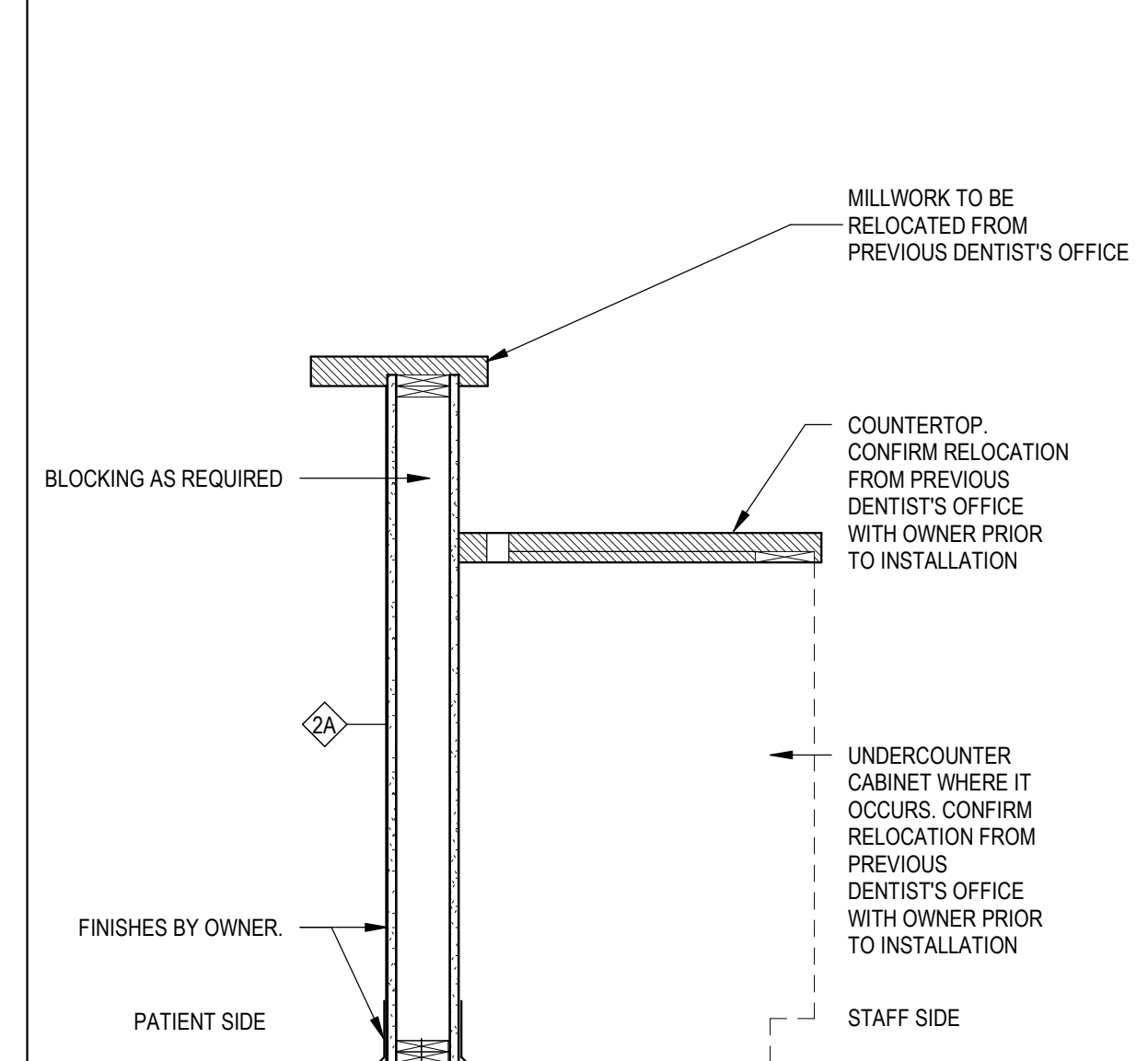
**1 Int Elev Restroom E11 North**  
3/8" = 1'-0"



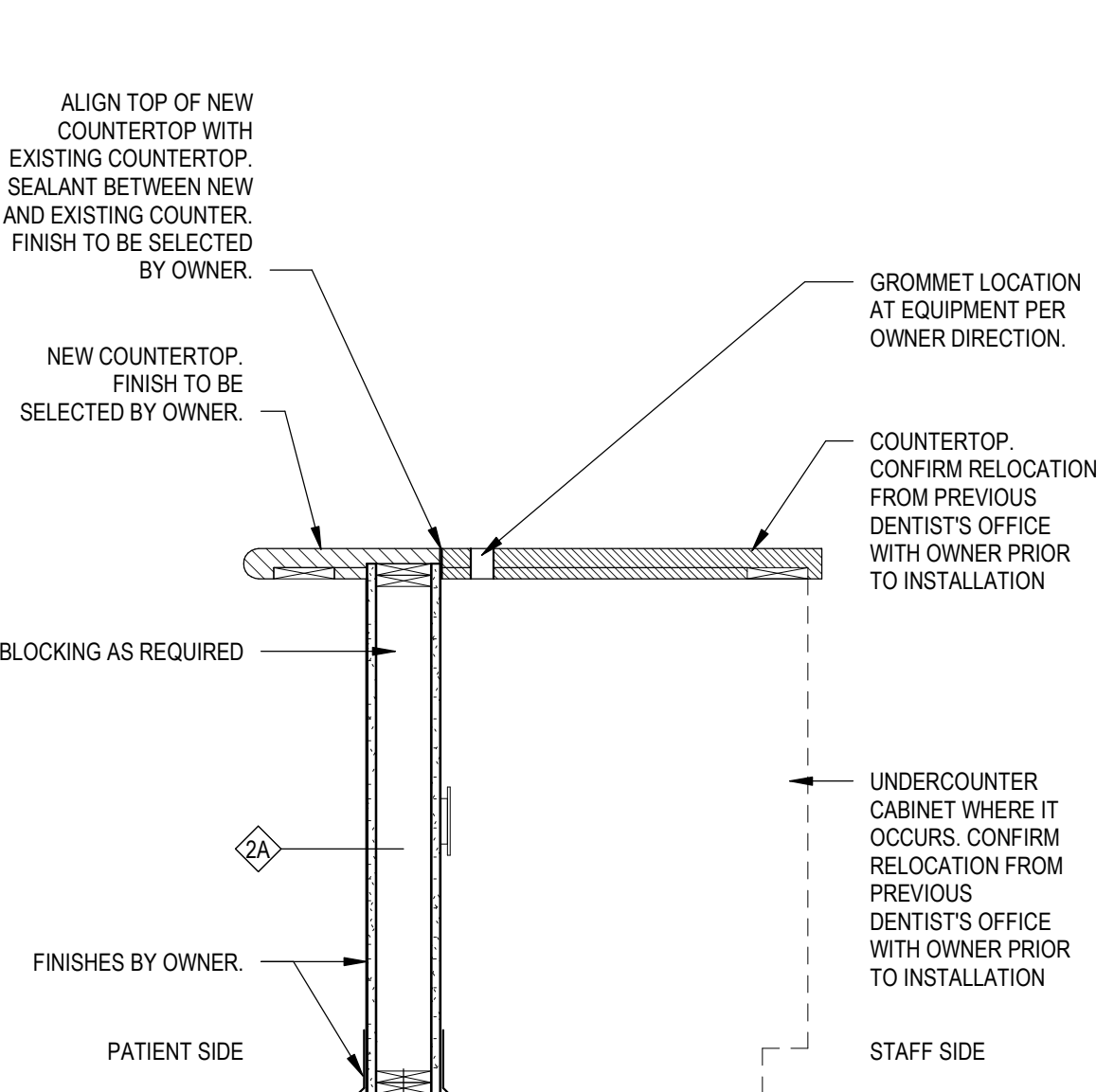
Door Number	Door			Frame									Hardware	Fire Rating	Notes	
	Size			Door Material	Door Type	Door Finish	Leafs	Frame Material	Frame Type	Frame Finish	Details					
	Width	Height	Thickness								Head	Jamb				Threshold
1	3'-0"	7'-0"	0'-1 3/4"	Wood	B	Paint	1	HM	2	Paint	4/A6.1	4/A6.1	-	Selected by Owner	-	
2	3'-0"	7'-0"	-	-	-	-	1	HM	2	Paint	5/A6.1	5/A6.1	-	Selected by Owner	-	
3A	3'-0"	7'-0"	-	-	-	-	1	HM	2	Paint	5/A6.1	5/A6.1	-	Selected by Owner	-	
3B	3'-0"	7'-0"	-	-	-	-	1	HM	2	Paint	5/A6.1	5/A6.1	-	Selected by Owner	-	
4	3'-0"	7'-0"	-	-	-	-	1	HM	2	Paint	5/A6.1	5/A6.1	-	Selected by Owner	-	
5A	3'-0"	7'-0"	-	-	-	-	1	HM	2	Paint	5/A6.1	5/A6.1	-	Selected by Owner	-	
5B	3'-0"	7'-0"	-	-	-	-	1	HM	2	Paint	5/A6.1	5/A6.1	-	Selected by Owner	-	
6	3'-0"	7'-0"	-	-	-	-	1	HM	2	Paint	5/A6.1	5/A6.1	-	Selected by Owner	-	
7	3'-0"	7'-0"	0'-1 3/4"	Wood	A	Paint	1	HM	2	Paint	4/A6.1	4/A6.1	-	Selected by Owner	-	
8A	3'-0"	7'-0"	0'-1 3/4"	Wood	A	Paint	1	HM	2	Paint	4/A6.1	4/A6.1	-	Selected by Owner	-	
8C	3'-0"	7'-0"	0'-1 3/4"	Wood	A	Paint	1	HM	2	Paint	4/A6.1	4/A6.1	-	Selected by Owner	-	
9	3'-0"	7'-0"	0'-1 3/4"	Wood	A	Paint	1	HM	2	Paint	4/A6.1	4/A6.1	-	Selected by Owner	1 Hour	
10	3'-0"	7'-0"	0'-1 3/4"	Wood	A	Paint	1	HM	2	Paint	4/A6.1	4/A6.1	-	Selected by Owner	-	
11	3'-0"	7'-0"	0'-1 3/4"	Wood	A	Paint	1	HM	2	Paint	4/A6.1	4/A6.1	-	Selected by Owner	-	
13	3'-0"	7'-0"	0'-1 3/4"	Wood	A	Paint	1	HM	2	Paint	4/A6.1	4/A6.1	-	Selected by Owner	-	
15	3'-0"	7'-0"	-	-	-	-	1	HM	2	Paint	5/A6.1	5/A6.1	-	Selected by Owner	-	
E1A	3'-0"	8'-8"	0'-1 3/4"	Existing to Remain	C	Existing to Remain	1	Existing to Remain	1	Existing to Remain	Existing to Remain	Existing to Remain	Existing to Remain	Existing to Remain	-	
E1B	3'-0"	7'-0"	0'-1 3/4"	Existing to Remain	A	Existing to Remain	1	Existing to Remain	1	Existing to Remain	Existing to Remain	Existing to Remain	Existing to Remain	Existing to Remain	-	
E3	3'-0"	8'-8"	0'-1 3/4"	Existing to Remain	C	Existing to Remain	1	Existing to Remain	1	Existing to Remain	Existing to Remain	Existing to Remain	Existing to Remain	Existing to Remain	-	Door to remain locked at all times.

NOTE: ALL FINAL DOOR FRAME, DOOR AND HARDWARE FINISHES TO BE SELECTED BY OWNER PRIOR TO INSTALLATION

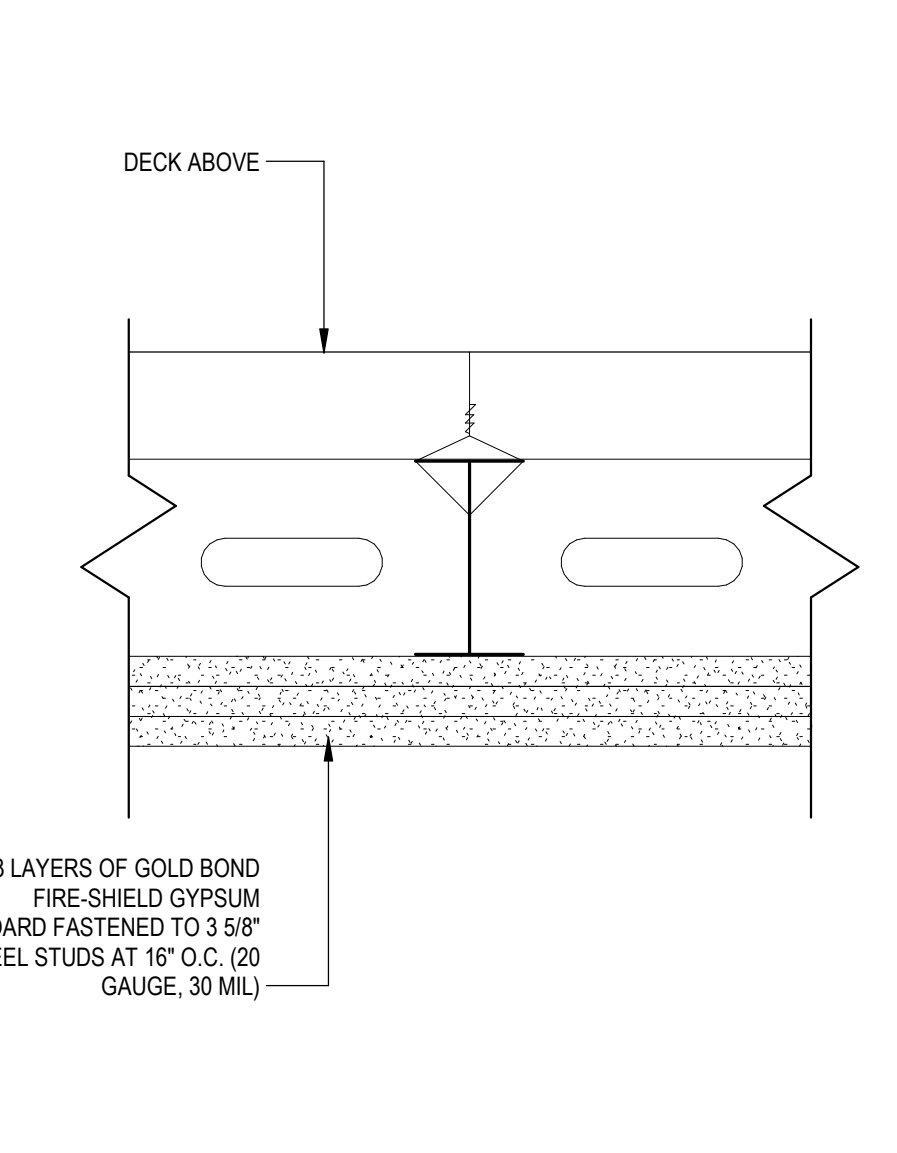
11 Door Schedule



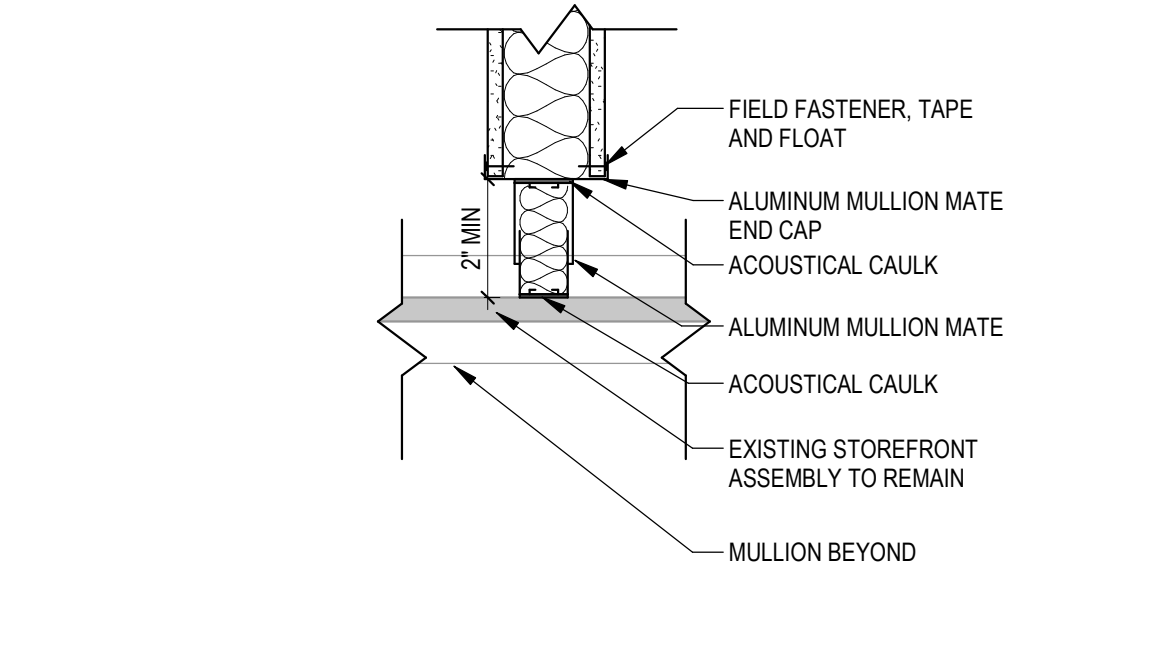
10 Existing Check In Counter Section Detail  
1" = 1'-0"



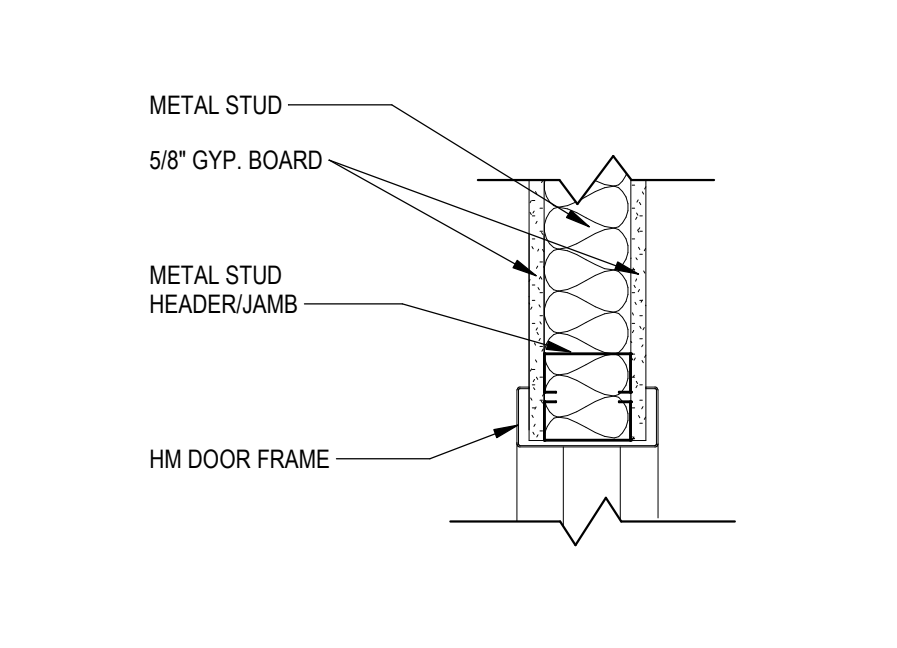
9 New Check In Counter Section Detail  
1" = 1'-0"



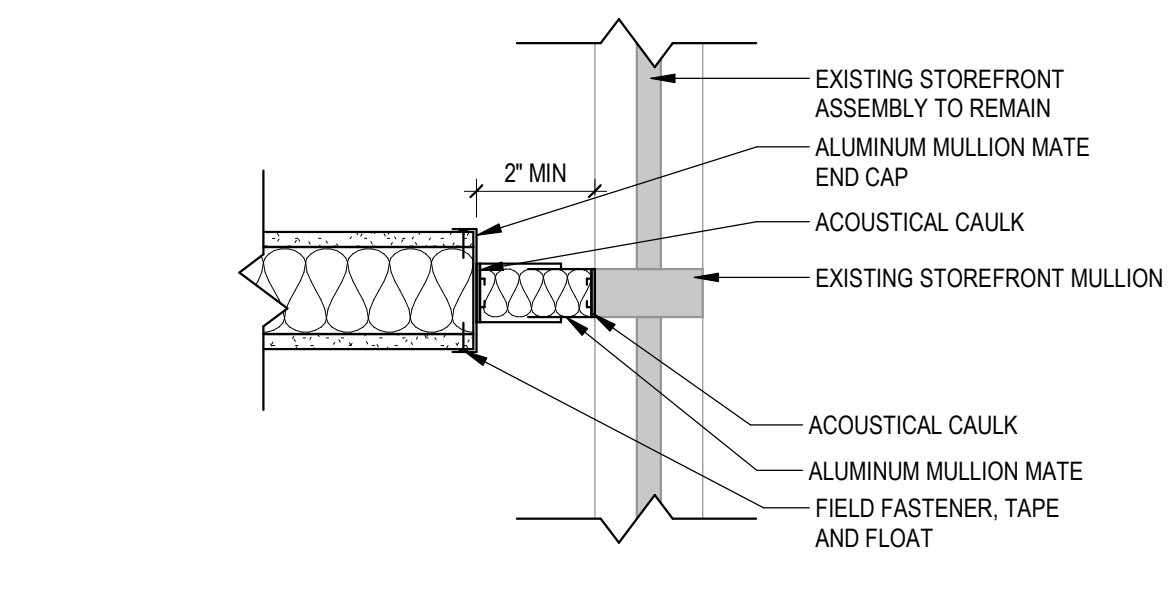
6 UL Design I504 Detail  
3" = 1'-0"



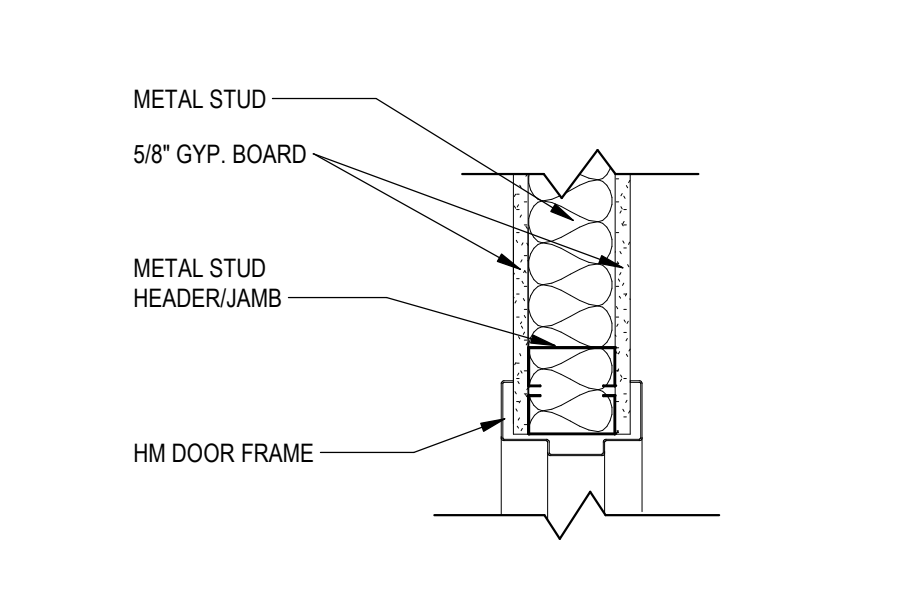
8 Wall to Glazing Detail  
1 1/2" = 1'-0"



5 HM Door Opening Head/Jamb Detail  
1 1/2" = 1'-0"



7 Wall to Mullion Detail  
1 1/2" = 1'-0"



4 HM Door Head/Jamb Detail  
1 1/2" = 1'-0"

1 EXISTING CLEAR

2 SPANDREL (COLOR TO BE SELECTED BY OWNER)

GLAZING GENERAL NOTES:  
1. ALL EXISTING EXTERIOR GLAZING ASSEMBLIES TO REMAIN AS IT UNLESS NOTED OTHERWISE.

3 Legend - Glazing

A NO LITE FLUSH PANEL

B NARROW LITE FLUSH PANEL

C FULL LITE

2 Door Panel Types

1 Aluminum 4\"/>

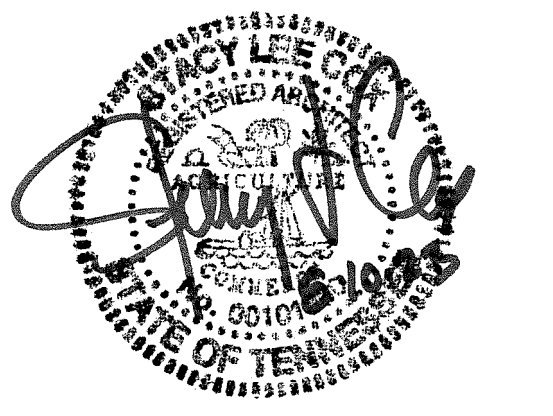
2 STANDARD WOOD FRAME 1x4 FLAT STOCK TRIM

1 Door Frame Types



studio four design inc.  
architecture | interiors  
414 clinch avenue | knoxville, tn 37902  
865.523.5001 | studiofourdesign.com

Description of the Project for/at:  
**Don Harrell D.D.S.**  
6701 Baum Drive Unit 165  
Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08.10.2023

Revisions		
No.	Description	Date

Job Number: 23106

Door Schedule, Elevations, & Details

**A6.1**

Date: 8/10/2023 10:01:18 AM  
Drawn By: Author  
Checked By: Checker  
File: C:\Users\amyers\Documents\Local Models\23106\_Don Harrell DDS\_R22\_amyers\VC\NK.rvt

© 2023 studio four design, inc.  
This drawing, its design detail and invention is the property of Studio Four Design, inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.

Date: 8/30/2023 5:36:37 PM  
 Drawn By: Author  
 Checked By: Checker  
 File: C:\Users\williams\Documents\223071 Don Harrell Dental Office Knoxville TN - MEP\22\_williams\_4\HMS.rvt

© 2023 studio four design, inc.  
 This drawing, its design details and invention is the property of Studio Four Design, inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.

## SPECIFICATIONS

### GENERAL NOTES:

REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED EQUIPMENT.

ALL DUCT DIMENSIONS INDICATED IN THESE DOCUMENTS ARE INSIDE-CLEAR DIMENSIONS.

PORTIONS OF DUCTWORK OR PIPING VISIBLE THROUGH GRILLES AND REGISTERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK. PAINT BLACK BEHIND ALL GRILLES.

ALL WIRING IN THE CEILING PLENUM SHALL BE PLENUM RATED CABLE.

MOUNTING FRAME OF CEILING MOUNTED AIR DISTRIBUTION DEVICES SHALL BE COMPATIBLE WITH CEILING TYPE. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPE.

ALL FIRE SEPARATIONS MUST BE PROTECTED WHEN APPLICABLE.

PROVIDE NEW FILTERS (MERV 7 OR BETTER PER OWNER) FOR ALL APPLICABLE HVAC EQUIPMENT AT THE END OF CONSTRUCTION.

ALL MATERIAL IN PLENUM MUST MEET FIRE AND SMOKE SPREAD AS REQUIRED BY NFPA 90A.

ALL ROOF PENETRATIONS TO BE 12" APART AND AT LEAST 12" AWAY FROM CURBS, WALLS, AND DRAIN SUMPS TO PROVIDE ROOFING CONTRACTOR WITH SUFFICIENT ACCESS FOR FLASHING EACH ROOF PENETRATION.

SUBSTITUTIONS MUST BE APPROVED IN WRITING BY ARCHITECT PRIOR TO BID SUBMISSION.

CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS AND SHALL BE FAMILIAR WITH THE SCOPE AND REQUIREMENTS OF THIS PROJECT. ANY DISCREPANCIES OR LACK OF CLARITY IN THE DOCUMENTS SHALL BE IDENTIFIED TO THE ARCHITECT OR ENGINEER PRIOR TO THE SUBMISSION OF PRICING BIDS. WITH A SUBMITTED BID, CONTRACTOR IS ACCEPTING THESE DOCUMENTS AS SUFFICIENT DEFINITION OF THE SCOPE OF WORK, AND ANY ADDITIONAL COSTS BASED ON UNCLARITY OF CONTRACT DOCUMENTS WILL NOT BE CONSIDERED.

THE CONTRACTOR SHALL REFERENCE THE FULL SET OF CONSTRUCTION DOCUMENTS DURING PRICING AND CONSTRUCTION FOR COORDINATION BETWEEN DISCIPLINES RELATIVE TO THE MECHANICAL SCOPE.

### GUARANTEE:

GUARANTEE THAT EACH PIECE OF APPARATUS SHALL BE OF THE CUSTOMARY STANDARD AND QUALITY FURNISHED BY THE DESIGNED MANUFACTURER FOR THAT CATALOG NUMBER.

GUARANTEE THAT THE AIR SYSTEMS SHALL OPERATE WITHOUT AERODYNAMIC NOISE GENERATED FROM THE FAULTY INSTALLATION OF DUCT WORK OR ANY COMPONENT OF THE AIR DISTRIBUTION SYSTEM.

GUARANTEE THAT ALL SYSTEMS AND COMPONENTS SHALL BE PROVIDED WITH A ONE YEAR WARRANTY FROM THE TIME OF DATE OF SUBSTANTIAL COMPLETION. THE WARRANTY SHALL COVER ALL MATERIALS AND WORKMANSHIP. DURING THIS WARRANTY PERIOD, ALL DEFECTS IN MATERIALS AND WORKMANSHIP SHALL BE CORRECTED BY REPAIR OR REPLACEMENT WITHOUT INCURRING ADDITIONS TO THE CONTRACT.

### EXISTING CONDITIONS:

CONTRACTOR SHALL VISIT THE SITE AND UNDERSTAND JOB CONDITIONS BEFORE SUBMITTING A PROPOSAL. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS AND SIZES OF ALL EXISTING UTILITY SERVICES PRIOR TO SUBMITTING HIS PROPOSAL. NO CONSIDERATION WILL BE GIVEN TO CLAIMS FOR EXTRA COST ARISING FROM CONTRACTOR'S FAILURE TO BE FULLY COGNIZANT OF JOB OR SITE CONDITIONS EXISTING AT TIME OF ACCEPTANCE OF BID.

ACTIVE SERVICES: WHEN ENCOUNTERED IN WORK, PROTECT, BRACE, SUPPORT EXISTING ACTIVE SEWERS, GAS AND OTHER SERVICES REQUIRED FOR PROPER EXECUTION OF WORK. IF EXISTING ACTIVE SERVICES ARE ENCOUNTERED THAT REQUIRE RELOCATION, RELOCATE AS APPROVED. DO NOT PREVENT OR DISTURB OPERATION OF ACTIVE SERVICES THAT ARE TO REMAIN.

INACTIVE SERVICES: WHEN ENCOUNTERED IN WORK, REMOVE, CAP OR PLUG INACTIVE SERVICES, AS INDICATED.

INTERRUPTION OF SERVICES: WHERE WORK MAKES TEMPORARY SHUT-DOWNS OF SERVICES UNAVOIDABLE, SHUT DOWN AT NIGHT, OR AT SUCH TIMES AS APPROVED BY OWNER, WHICH WILL CAUSE LEAST INTERFERENCE WITH ESTABLISHED OPERATING ROUTINE. ARRANGE WORK TO ASSURE THAT SERVICES WILL BE SHUT DOWN ONLY DURING TIME ACTUALLY REQUIRED TO MAKE NECESSARY CONNECTION TO EXISTING WORK.

WHERE EXISTING WALLS, CEILINGS, FLOORS, ETC., ARE CUT OR OTHERWISE DAMAGED DURING CONSTRUCTION, REPAIR ALL SURFACES TO THEIR ORIGINAL CONDITION.

### SHOP DRAWINGS:

SUBMIT SHOP DRAWINGS FOR REVIEW. PDF FILES PREFERRED. SHOP DRAWINGS SHALL BE BOUND INTO VOLUMES (FILES), WITH EACH VOLUME (FILE) CONTAINING ONE COPY OF ALL SHOP DRAWINGS. ALL SHOP DRAWINGS SHALL BE SUBMITTED SIMULTANEOUSLY; NO SHOP DRAWINGS WILL BE CHECKED UNTIL ALL HAVE BEEN SUBMITTED.

SUBMITTALS SHALL BE SUPPORTED BY DESCRIPTIVE MATERIAL, SUCH AS CATALOG CUTS, DIAGRAMS, PERFORMANCE CURVES AND CHARTS PUBLISHED BY THE MANUFACTURER, TO SHOW CONFORMANCE TO SPECIFICATION AND DRAWING REQUIREMENTS. MODEL NUMBERS ALONE WILL NOT BE ACCEPTABLE. ALL LITERATURE SHALL CLEARLY INDICATE THE SPECIFIED MODEL NUMBER, DIMENSIONS, ARRANGEMENT, RATING AND CHARACTERISTICS OF THE PROPOSED EQUIPMENT. CAPACITIES AND RATINGS SHALL BE BASED ON CONDITIONS INDICATED OR SPECIFIED HEREIN. ANY DEVIATIONS FROM SPECIFIED EQUIPMENT (PARTICULARLY THOSE WHICH REQUIRE COORDINATION WITH OTHER TRADES) SHALL BE CLEARLY NOTED IN A CONCISE LIST ON A SEPARATE SHEET.

## SPECIFICATIONS

### DUCTWORK AND ACCESSORIES:

INDUSTRY STANDARDS: COMPLY WITH SMACNA (SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION) HVAC DUCT CONSTRUCTION STANDARDS, RECOMMENDATIONS FOR FABRICATION, GAUGES, CONSTRUCTION AND DETAILS, AND INSTALLATION PROCEDURES, EXCEPT AS OTHERWISE INDICATED.

COMPLY WITH ASHRAE (AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS) FUNDAMENTALS HANDBOOK RECOMMENDATIONS, EXCEPT AS OTHERWISE INDICATED.

DUCTWORK METAL AND GAUGES: EXCEPT AS OTHERWISE INDICATED, FABRICATE DUCTWORK FROM GALVANIZED SHEET STEEL COMPLYING WITH ASTM A527. LOCKFORMING QUALITY, WITH ASTM A525 G90 ZINC COATING, MILL PHOSPHATIZED. GAUGES TO COMPLY WITH SMACNA STANDARDS.

DUCT SEALANT: NON-HARDENING, NON-MIGRATING MASTIC OR LIQUID ELASTIC SEALANT (TYPE APPLICABLE FOR THE FABRICATION/INSTALLATION DETAIL) AS COMPOUNDED AND RECOMMENDED BY THE MANUFACTURER SPECIFICALLY FOR SEALING JOINTS AND SEAMS IN DUCTWORK.

DUCTWORK SUPPORT MATERIALS: EXCEPT AS OTHERWISE INDICATED, PROVIDE UPPER ATTACHMENT, HANGERS OF GALVANIZED STEEL STRAPS OR STEEL RODS AND LOWER ATTACHMENT FOR SUPPORT OF DUCTWORK. HANGING/SUPPORT SYSTEMS SHALL BE IN ACCORDANCE WITH SMACNA REQUIREMENTS.

EXPOSED DUCTWORK SHALL BE DOUBLE-WALL SPIRAL PIPE WITH PAINT GRIP UNLESS OTHERWISE NOTED OR SUBSTITUTION APPROVED BY OWNER.

VOLUNTARY ALTERNATE EXPOSED DUCTWORK SHALL BE SINGLE-WALL SPIRAL PIPE UNLESS OTHERWISE NOTED OR SUBSTITUTION APPROVED BY OWNER. ALL EXPOSED DUCTWORK SHALL BE LINED IN LIEU OF WRAPPED. DUCT LINER THERMAL RESISTANCE SHALL MEET THE MINIMUM VALUES SPECIFIED IN PARAGRAPH 'DUCT INSULATION' BELOW.

### DUCT INSULATION:

R-5 SUPPLY, OUTSIDE AND RETURN AIR DUCT INSULATION IN UNCONDITIONED SPACES R-8 SUPPLY AND RETURN AIR DUCT INSULATION OUTSIDE THE BUILDING R-8 INSULATION BETWEEN DUCTS AND THE BUILDING EXTERIOR WHEN DUCTS ARE PART OF A BUILDING ASSEMBLY

### DIFFUSERS, GRILLES, & REGISTERS:

EGGCRATE GRILLE:

RETURN GRILLES SHALL BE TITUS MODEL 50F FOR THE SIZES AND MOUNTING TYPES AS SHOWN ON THE PLANS AND OUTLET SCHEDULE. RETURN GRILLES MUST PROVIDE A FREE AREA OF AT LEAST 90%. OUTER BORDERS SHALL BE CONSTRUCTED OF HEAVY EXTRUDED ALUMINUM WITH A THICKNESS OF 0.040-0.050 INCH AND SHALL HAVE COUNTERSINK SCREW HOLES FOR A NEAT APPEARANCE. BORDER WIDTH SHALL BE 1/4 INCHES ON ALL SIDES AND SHALL BE INTERLOCKED AT THE FOUR CORNERS AND MECHANICALLY STAKED TO FORM A RIGID FRAME. CHOICE OF THREE SIZES OF ALUMINUM GRID: 1/2 X 1/2 X 1/2 INCH, 1/2 X 1/2 X 1 INCH, OR 1 X 1 X 1 INCH SHALL BE AVAILABLE.

OPTIONAL OPPOSED-BLADE VOLUME DAMPER SHALL BE CONSTRUCTED OF HEAVY GAUGE STEEL OR ALUMINUM. DAMPER MUST BE OPERABLE FROM THE FACE OF THE GRILLE.

LOUVERED FACE DIFFUSERS:

CEILING DIFFUSERS SHALL BE OF THE SIZES AND MOUNTING TYPES SHOWN ON THE PLANS AND OUTLET SCHEDULE. A UNIFORM FACE SIZE AND APPEARANCE WHEN DIFFERENT NECK SIZES ARE USED IN THE SAME AREA. ALL CONES SHALL BE ONE PIECE. PRECISION DIE-STAMPED; THE BACK CONE SHALL ALSO INCLUDE AN INTEGRALLY DRAWN INLET (WELDED-IN INLETS AND CORNER JOINTS ARE NOT ACCEPTABLE). THE TWO INNER CONES SHALL BE CONSTRUCTED AS A SINGLE, REMOVABLE INNER CONE ASSEMBLY FOR EASY INSTALLATION AND CLEANING. THE INNER CONE ASSEMBLY MUST HAVE A HOLE WITH REMOVABLE PLUG IN THE CENTER TO ALLOW QUICK ADJUSTMENT OF AN OPTIONAL INLET DAMPER WITHOUT REMOVING THE INNER CONE ASSEMBLY. DIFFUSERS SHALL BE CONSTRUCTED OF 24-GAUGE STEEL OR 0.040 ALUMINUM.

THE FINISH SHALL BE #26 WHITE. THE FINISH SHALL BE AN ANODIC ACRYLIC PAINT, BAKED AT 315°F FOR 30 MINUTES. THE FINISH SHALL BE HB TO H. THE PAINT MUST PASS A 100-HOUR ASTM B117 CORROSIVE ENVIRONMENTS SALT SPRAY TEST WITHOUT CREEPAGE, BULSTERING OR DETERIORATION OF FILM. THE PAINT MUST PASS A 250-HOUR ASTM D870 WATER IMMERSION TEST. THE PAINT MUST ALSO PASS THE ASTM D2794 REVERSE IMPACT CRACKING TEST WITH A 50-INCH POUND FORCE APPLIED.

OPTIONAL ROUND DAMPER SHALL BE CONSTRUCTED OF HEAVY GAUGE STEEL. DAMPER MUST BE OPERABLE FROM THE FACE OF THE DIFFUSER. OPTIONAL SECTORIZING BAFFLES SHALL BE AVAILABLE TO RESTRICT THE DISCHARGE AIR IN CERTAIN DIRECTIONS.

OPTIONAL MOLDED INSULATION BLANKET SHALL BE AVAILABLE. THE INSULATION WILL BE R-6, FOIL-BACKED AND PROVIDED AN ADDITIONAL 1-INCH GAP AROUND THE NECK TO INSTALL INSULATED FLEX DUCT.

THE MANUFACTURER SHALL PROVIDE PUBLISHED PERFORMANCE DATA FOR THE SQUARE DIFFUSER. THE DIFFUSER SHALL BE TESTED IN ACCORDANCE WITH ANSI/ASHRAE STANDARD 70-2006.

### CEILING FAN:

CEILING MOUNTED EXHAUST FANS SHALL BE OF THE CENTRIFUGAL DIRECT DRIVE TYPE. THE FAN HOUSING SHALL BE CONSTRUCTED OF STEEL. THE PLASTIC DUCT COLLAR SHALL BE A TAPERED SLEEVE FOR EASE OF CONNECTION TO 3 IN AND 4 IN ROUND DUCTWORK AND SHALL INCLUDE A BACKDRAFT DAMPER. THE GRILLE SHALL BE CONSTRUCTED OF NON-YELLOWING HIGH STRENGTH POLYMER AND ATTACHED TO THE HOUSING WITH TORSION SPRINGS. THE WHEELS SHALL BE CONSTRUCTED OF HIGH STRENGTH POLYMER. THE ACCESS FOR WIRING SHALL BE EXTERNAL. THE MOTOR DISCONNECT SHALL BE INTERNAL AND OF THE PLUG IN TYPE.

ALL FANS SHALL BEAR THE AMCA CERTIFIED RATINGS SEALS FOR SOUND AND AIR PERFORMANCE AND SHALL BE U.L. LISTED.

## ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	MAU	MAKE-UP AIR UNIT
AHU	AIR HANDLING UNIT	MAV	MANUAL AIR VENT
CO2	CARBON DIOXIDE	MBH	1,000 BTU PER HOUR
D	CONDENSATE DRAIN	MFCU	MINI FAN COIL UNIT
DB	DRY BULB	MHP	MINI HEAT PUMP
EA	EXHAUST AIR	MVD	MANUAL VOLUME DAMPER
EDH	ELECTRIC DUCT HEATER	NC	NORMALLY CLOSED
EF	EXHAUST FAN	NO	NORMALLY OPEN
ESP	EXTERNAL STATIC PRESSURE	OA	OUTSIDE AIR
EWH	ELECTRIC WALL HEATER	OBD	OPPOSED BLADE DAMPER
F	DEGREES FAHRENHEIT	PDU	POOL DEHUMIDIFYING UNIT
FCU	FAN COIL UNIT	PIU	POWER INDUCTION UNIT
FD	FIRE DAMPER	RA	RETURN AIR
FSD	COMB. FIRE/SMOKE DAMPER	RH	RELIEF HOOD
H	HUMIDISTAT	RTU	ROOFTOP UNIT
IH	INTAKE HOOD	SA	SUPPLY AIR
LAT	LEAVING AIR TEMPERATURE	SP	STATIC PRESSURE
LWT	LEAVING WATER TEMPERATURE	UC	UNDER CUT DOOR
M	MOTOR	VAV	VARIABLE AIR VOLUME
MA	MAKE-UP AIR	WB	WET BULB

## LEGEND

SYMBOLS	DESCRIPTION
X1 X2	DIFFUSER, GRILLE, REGISTER OR LOUVER TAG X1 = TYPE, X2 = CFM
⊗	POSITIVE PRESSURE (AIR GOES OUT) DIFFUSER OR REGISTER, 4-WAY AIR PATTERN (UNLESS OTHERWISE NOTED)
⊙	NEGATIVE PRESSURE (AIR GOES IN) GRILLE
→	POSITIVE PRESSURE AIRFLOW (TYP. SUPPLY)
←	NEGATIVE PRESSURE AIRFLOW (TYP. RETURN/EXHAUST)
	FLEXIBLE DUCT
⌋	MANUAL VOLUME DAMPER (MVD)
⌋ FD	VERTICAL (TYP. WALL) FIRE DAMPER
⌋ FSD	VERTICAL (TYP. WALL) COMBINATION FIRE/SMOKE DAMPER
⌋ FD	HORIZONTAL (TYP. FLOOR/CEILING) FIRE DAMPER
⌋ FSD	HORIZONTAL (TYP. FLOOR/CEILING) COMBINATION FIRE/SMOKE DAMPER
⊖	THERMOSTAT
⊕	HUMIDISTAT
⌋	INTERNALLY LINED DUCT
⊙	DUCT UP
⊗	DUCT UP
⊙	DUCT DN
⊗	SUPPLY DUCT
UNIT #	EQUIPMENT TYPE EQUIPMENT NUMBER. WHERE A LETTER IS USED, THERE ARE MULTIPLE INSTANCES.



studio four design inc.  
 architecture | interiors  
 414 clinch avenue | knoxville, tn 37902  
 865.523.5001 | studiofourdesign.com



PROFICIENT  
 ENGINEERING

4110 Sutherland Avenue  
 Knoxville, Tennessee 37919  
 865.409.5755  
 PROJECT # 223071

Description of the Project for/at:  
**Don Harrell D.D.S.**

6701 Baum Drive Unit 165  
 Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08/09/23		
Revisions		
No.	Description	Date

Job Number: 23106

GENERAL

**M0.1**



studio four design inc.  
 architecture | interiors  
 414 clinch avenue | knoxville, tn 37902  
 865.523.5001 | studiofourdesign.com

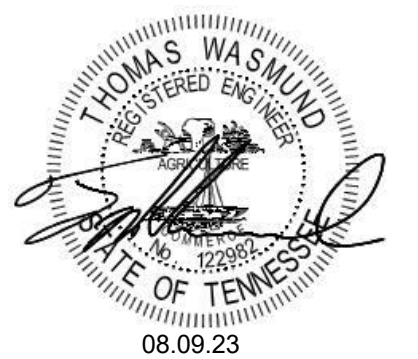


**PROFICIENT**  
 ENGINEERING

4110 Sutherland Avenue  
 Knoxville, Tennessee 37919  
 865.409.5755  
 PROJECT # 223071

Description of the Project for/at:  
**Don Harrell D.D.S.**

6701 Baum Drive Unit 165  
 Knoxville, TN 37919



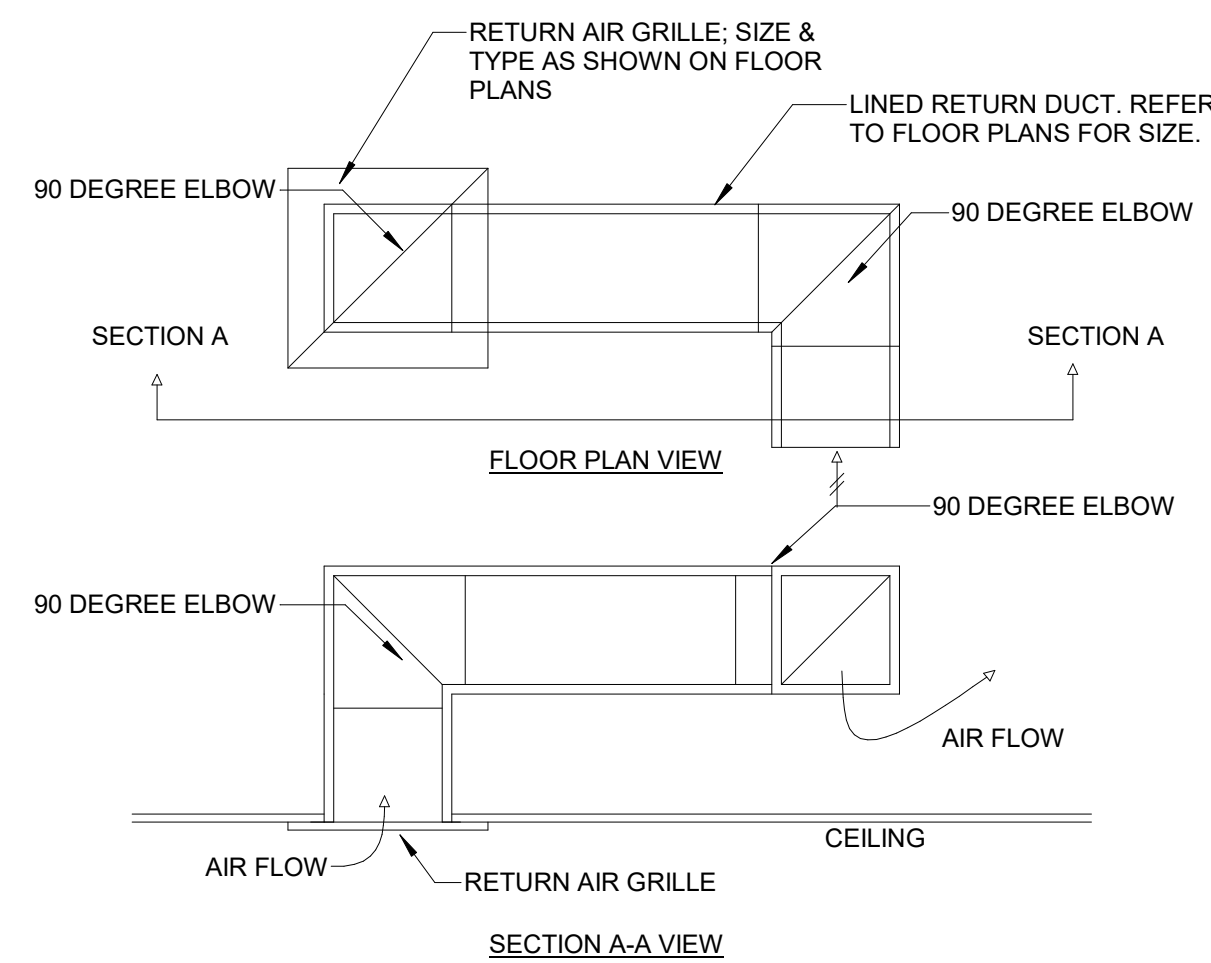
Project Phase: Construction Documents

Issue Date: 08/09/23		
Revisions		
No.	Description	Date

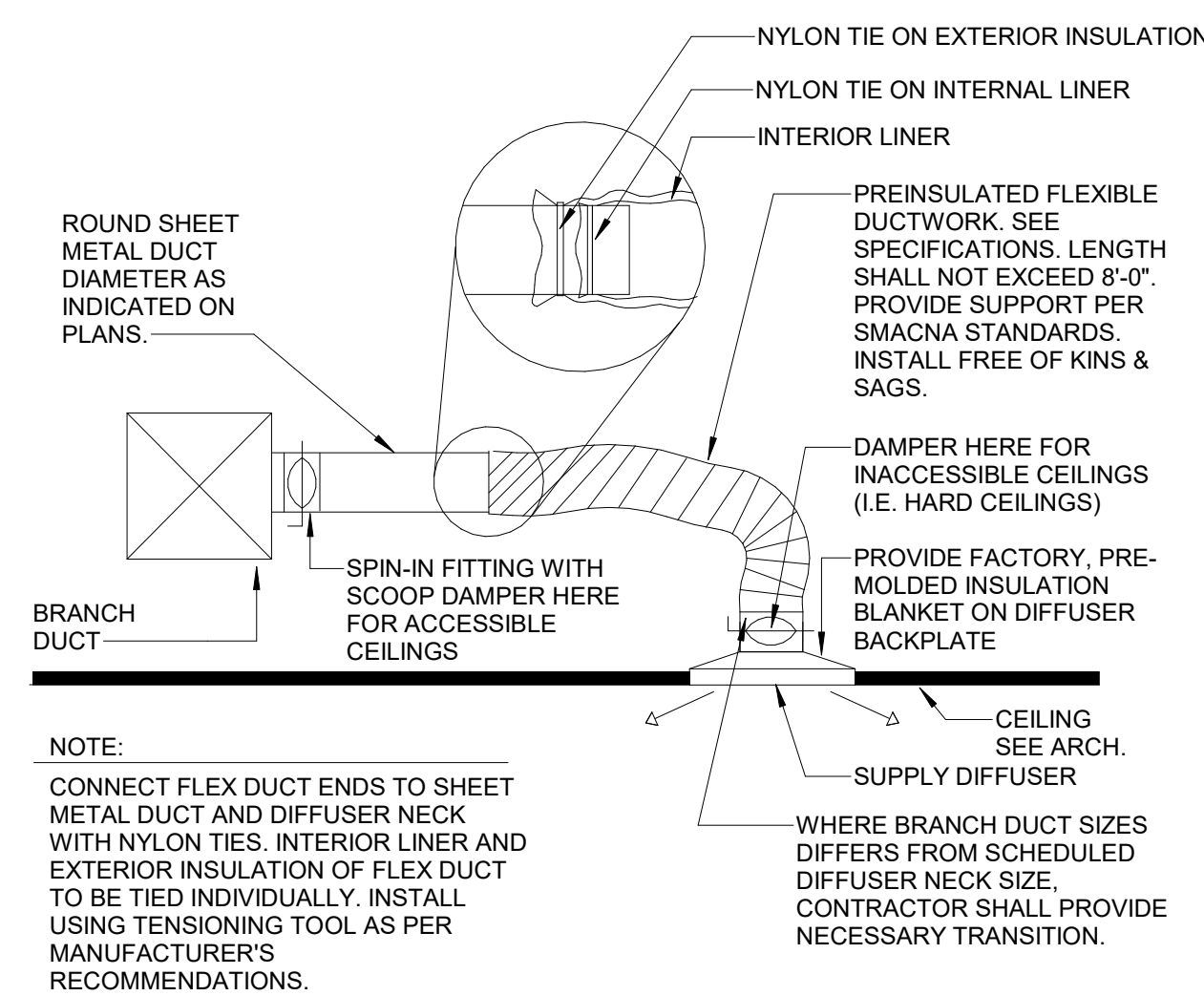
Job Number: 23106

DETAILS AND SCHEDULES

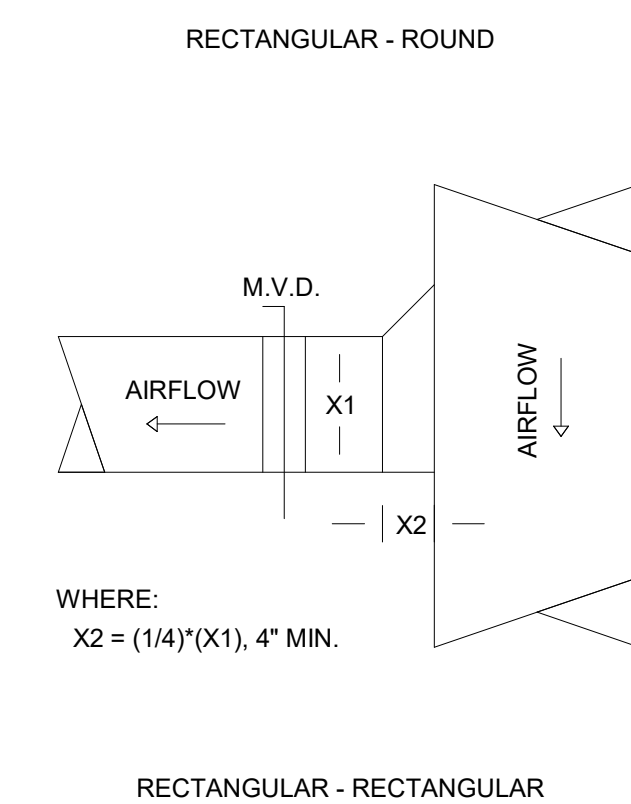
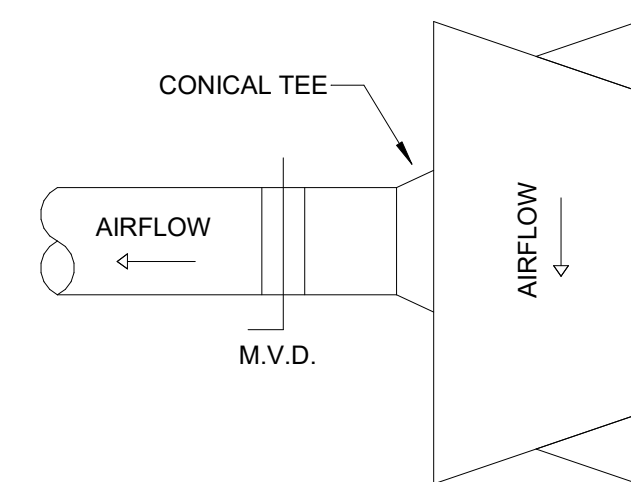
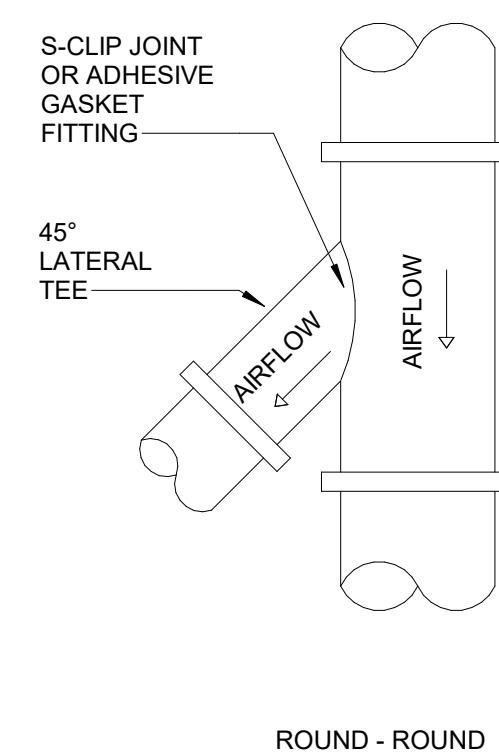
**M0.2**



**3 RETURN AIR BOOT**  
 M02 N.T.S.



**1 DIFFUSER TAKE-OFF**  
 M02 N.T.S.



**2 DUCTWORK**  
 M02 N.T.S.

**DIFFUSER, GRILLE AND REGISTER SCHEDULE**

DIFFUSER TAG	DESCRIPTION	FACE SIZE (IN)	INLET SIZE (IN)	NOISE CRITERIA @ MAX CFM	MODEL
RC2424	EGGCRATE GRILLE	24"x24"	24"x24"	25	TITUS 50F
SCL06	LOUVERED FACE SUPPLY	24"x24"	6"x6"	25	TITUS TMS
SCL08	LOUVERED FACE SUPPLY	24"x24"	8"x8"	25	TITUS TMS

A. AIR DEVICE (I.E. DIFFUSERS, REGISTERS AND GRILLES) COLOR SELECTION SHALL BE MADE BY ARCHITECT. CONTRACTOR SHALL SUBMIT COLOR/FINISH CHARTS FOR ARCHITECTURAL REVIEW AND SELECTION.  
 B. THE CONTRACTOR SHALL COORDINATE AIR DEVICE FRAME AND/OR SUSPENSION TYPE WITH THE ARCHITECTURAL REFLECTED CEILING PLAN.

**FAN SCHEDULE**

MARK	DUTY	TYPE	CFM	ESP (IN WG)	MOTOR (W / HP*)	DRIVE	MAX NOISE (SONES)	CONTROL BY	BASIS OF DESIGN MODEL	REMARKS		
										1	2	3
EF-1	EXHAUST	CEILING CABINET	50	0.5	45	DIRECT	2.5	CONTINUOUS	GREENHECK SP	X	X	X
EF-2	EXHAUST	CEILING CABINET	200	0.5	155	DIRECT	4.5	INTERLOCK WITH COMPRESSOR	GREENHECK SP	X	X	X
EF-A	EXHAUST	CEILING CABINET	70	0.5	100	DIRECT	2	SWITCH WITH LIGHTS	GREENHECK SP	X	X	X

NOTES (APPLY TO ALL):

- A. SEE ELECTRICAL PLANS FOR POWER CHARACTERISTICS
- B. DESIGN IS BASED ON PRODUCTS BY GREENHECK. ACCEPTABLE ALTERNATES SHALL BE BY LOREN-COOK, TWIN-CITY, PENN BARRY.

REMARKS (APPLY AS SCHEDULED):

- 1. INTEGRATED FAN SPEED CONTROLLER INSIDE FAN FOR BALANCING.
- 2. FACTORY DISCONNECT SWITCH/PLUG.
- 3. GRAVITY BACKDRAFT DAMPER.

Date: 8/9/2023 5:36:37 PM Checked By: Checker  
 Drawn By: Author  
 File: C:\Users\williams\Documents\223071 Don Harrell Dental Office Knoxville TN - MEP\22\_williams\4.HMS.rvt

© 2023 studio four design, inc.  
 This drawing, its design detail and invention is the property of Studio Four Design, Inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.



studio four design inc.  
architecture | interiors  
414 clinch avenue | knoxville, tn 37902  
865.523.5001 | studiofourdesign.com

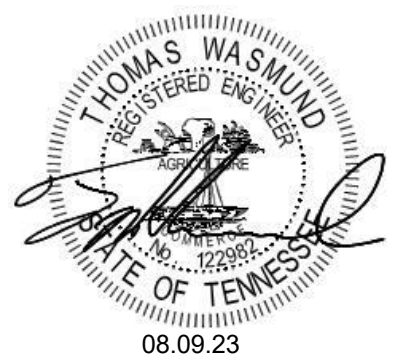


**PROFICIENT**  
ENGINEERING

4110 Sutherland Avenue  
Knoxville, Tennessee 37919  
865.409.5755  
PROJECT # 223071

Description of the Project for/at:  
**Don Harrell D.D.S.**

6701 Baum Drive Unit 165  
Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08/09/23		
Revisions		
No.	Description	Date

Job Number: 23106

FLOOR PLAN

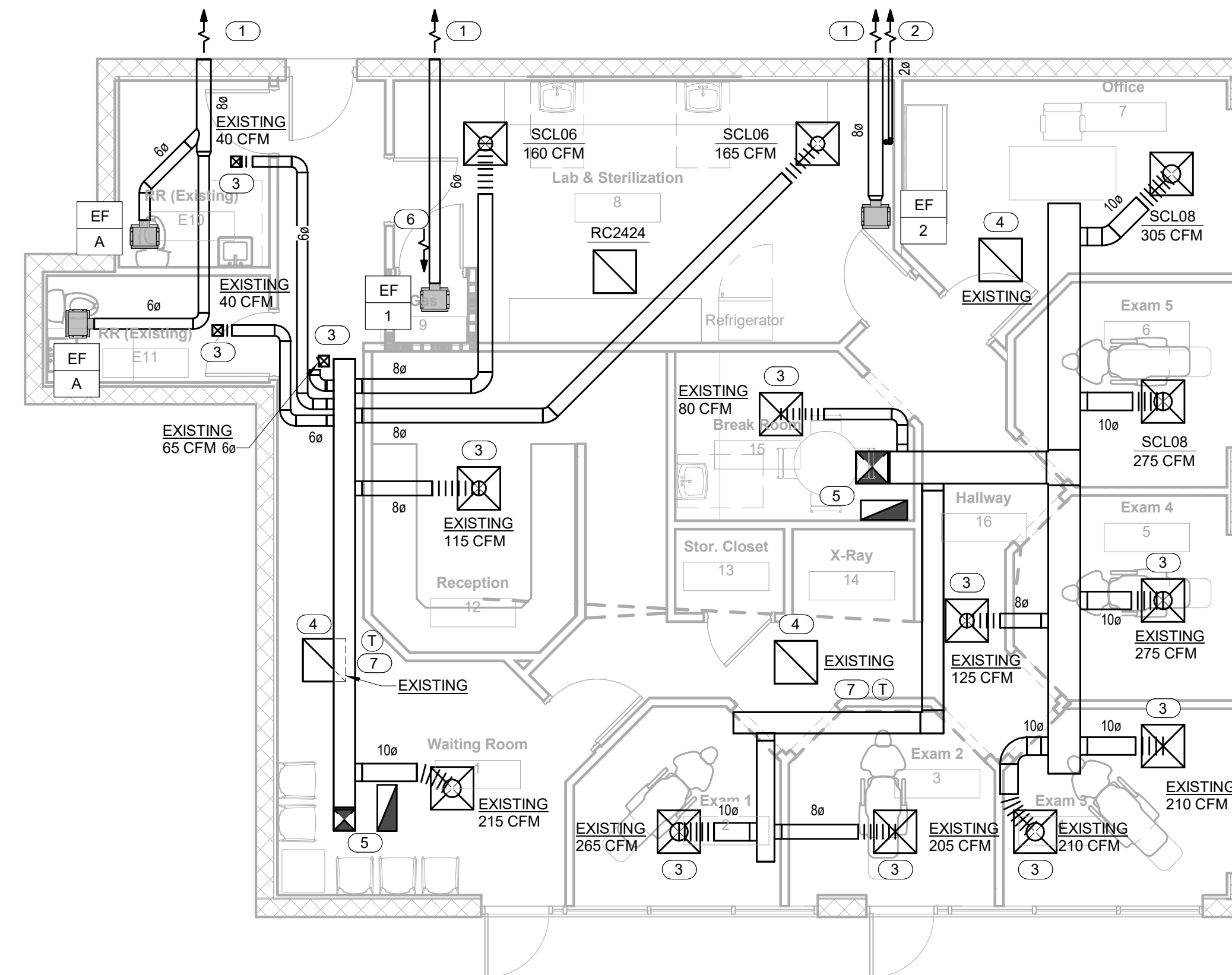
**M1.1**

**GENERAL NOTES**

- A. EACH SUPPLY DIFFUSER/REGISTER RUNOUT SHALL BE PROVIDED WITH A VOLUME DAMPER. REFER TO THE DIFFUSER TAKE-OFF DETAIL FOR ADDITIONAL INFORMATION.
- B. DRAWINGS ARE DIAGRAMMATIC ONLY; FINAL ROUTING OF DUCTWORK AND EQUIPMENT LOCATIONS SHALL BE DETERMINED IN THE FIELD. ADDITIONAL OFFSETS, ELBOWS, ETC. SHALL BE PROVIDED AND INSTALLED WITHOUT ADDITIONAL COST TO THE OWNER.
- C. THE MECHANICAL SUBCONTRACTOR HAS THE OPTION TO REUSE EXISTING AIR DEVICES (I.E. DIFFUSERS, REGISTERS, AND GRILLES) AND BRANCH DUCTS IF EXISTING AIR DEVICES AND BRANCH DUCTS ARE OF LIKE SIZE AND CONSTRUCTION TO THOSE SPECIFIED ON THESE PLANS. REUSED AIR DEVICES SHALL BE CLEANED AND REFURBISHED TO PROVIDE A LIKE-NEW APPEARANCE. REUSED DUCTWORK SHALL BE CLEANED AND PATCHED TO ENSURE PROPER FUNCTION.

**KEYNOTES**

- 1 EXHAUST DUCT ROUTED TO WALL CAP WITH INSECT SCREEN. LOCATE MINIMUM 3" FROM OPERABLE OPENINGS. WALL CAP COLOR AND FINISH TO MATCH EXTERIOR WALL COLORS AS CLOSE AS POSSIBLE FROM THE STANDARD COLORS. CONTRACTOR TO COORDINATE WITH OWNER.
- 2 2"Ø PVC VENT CONNECTED TO EXISTING VACUUM SYSTEM. VERIFY SIZING WITH MANUFACTURER'S INSTRUCTIONS. VENT ROUTED TO WALL CAP WITH INSECT SCREEN. WALL CAP COLOR AND FINISH TO MATCH EXTERIOR WALL COLORS AS CLOSE AS POSSIBLE FROM STANDARD COLORS. CONTRACTOR TO COORDINATE WITH OWNER.
- 3 RELOCATE EXISTING SUPPLY DIFFUSER TO LOCATION SHOWN. CONNECT SUPPLY DUCT TAP TO EXISTING TRUNK DUCT. SERVICE AND RESTORE TO GOOD WORKING ORDER. BALANCE TO CFM SHOWN.
- 4 RELOCATE EXISTING RETURN DIFFUSER TO LOCATION SHOWN. SERVICE AND RESTORE TO GOOD WORKING ORDER.
- 5 REFER TO SHEET M1.2 FOR EXISTING DUCTWORK CONTINUATION.
- 6 1" DOOR UNDERCUT.
- 7 WHERE EXISTING THERMOSTAT IS UNAVAILABLE OR IN POOR CONDITION, PROVIDE NEW PROGRAMMABLE THERMOSTAT AT LOCATION SHOWN. WHERE EXISTING THERMOSTAT IS AVAILABLE AND IN GOOD CONDITION, RELOCATE TO LOCATION SHOWN.



1 Floor Plan - Level 1 - MECHANICAL  
M1.1 3/16" = 1'-0"

Date: 8/10/2023 10:18:29 AM  
Drawn By: Author  
Checked By: Checker  
Piler: C:\Users\williams\Documents\223071 Don Harrell Dental Office Knoxville TN - MEP\22\_williams\4.HMS.rvt

© 2023 studio four design, inc.  
This drawing, its design detail and invention is the property of Studio Four Design, inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.



Date: 8/9/2023 5:36:38 PM  
Drawn By: Author  
Checked By: Checker  
File: C:\Users\williams\Documents\223071 Don Harrell Dental Office Knoxville TN - MEP\22\_williams\4.HMS.rvt

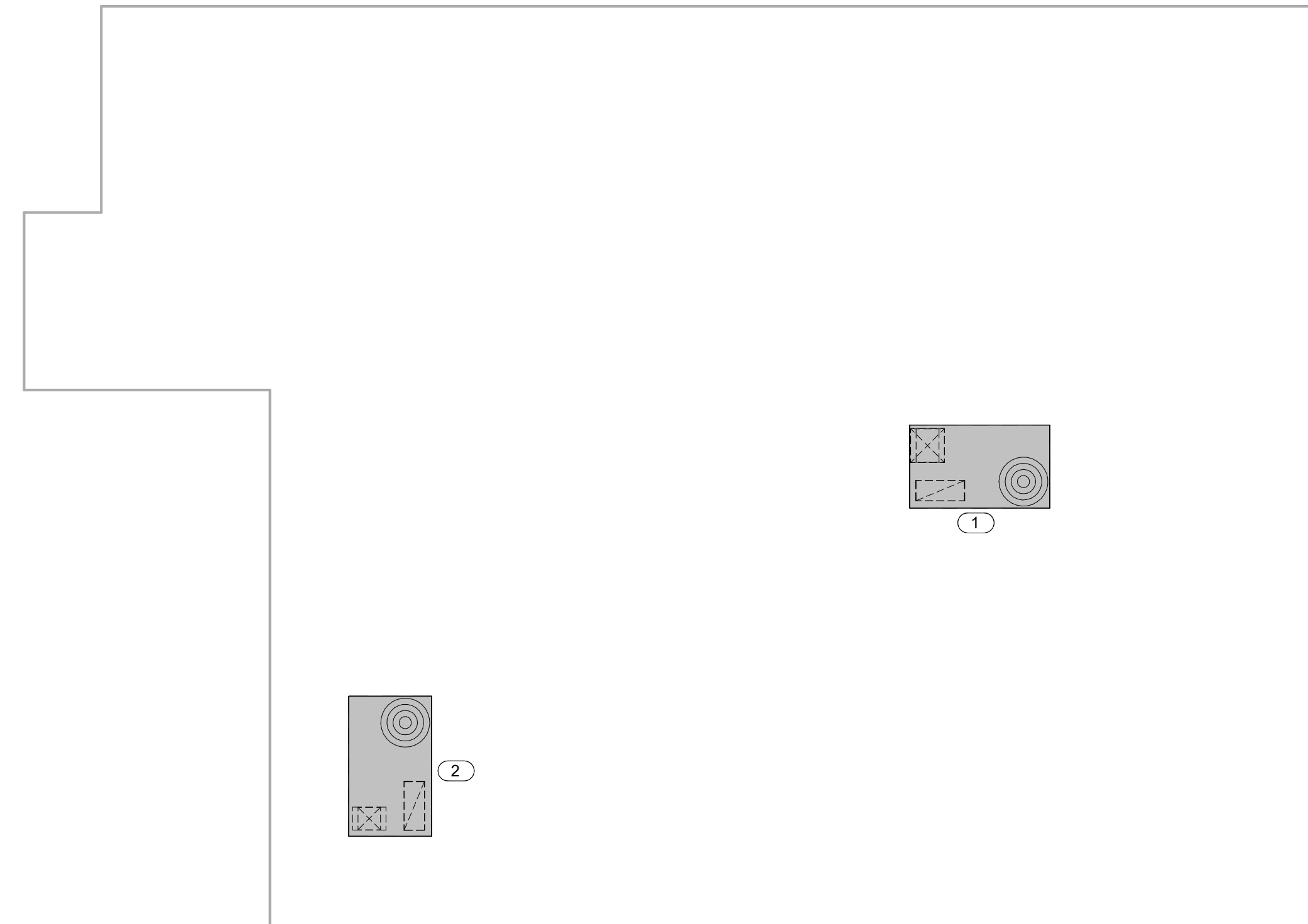
© 2023 studio four design, inc.  
This drawing, its design detail and invention is the property of Studio Four Design, inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.

### GENERAL NOTES

- A. DRAWINGS ARE DIAGRAMMATIC ONLY; FINAL ROUTING OF DUCTWORK AND EQUIPMENT LOCATIONS SHALL BE DETERMINED IN THE FIELD. ADDITIONAL OFFSETS, ELBOWS, ETC. SHALL BE PROVIDED AND INSTALLED WITHOUT ADDITIONAL COST TO THE OWNER.

### KEYNOTES

- 1 EXISTING 5 TON ROOFTOP UNIT TO REMAIN. SERVICE AND RESTORE RTU TO GOOD WORKING ORDER. BALANCE TO 1990 CFM SUPPLY AIR AND 255 CFM OUTSIDE AIR.
- 2 EXISTING 2 TON ROOFTOP UNIT TO REMAIN. SERVICE AND RESTORE RTU TO GOOD WORKING ORDER. BALANCE TO 800 CFM SUPPLY AIR AND 185 CFM OUTSIDE AIR.



1  
M2.1  
Roof Plan - MECHANICAL  
3/16" = 1'-0"



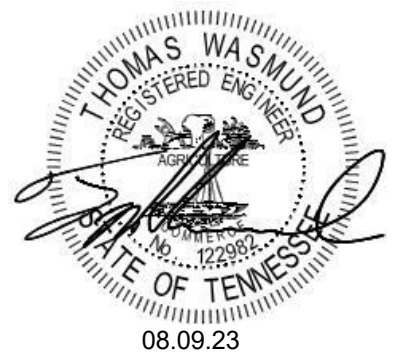
studio four design inc.  
architecture | interiors  
414 clinch avenue | knoxville, tn 37902  
865.523.5001 | studiofourdesign.com



**PROFICIENT**  
ENGINEERING  
4110 Sutherland Avenue  
Knoxville, Tennessee 37919  
865.409.5755  
PROJECT # 223071

Description of the Project for/at:  
**Don Harrell D.D.S.**

6701 Baum Drive Unit 165  
Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08/09/23		
Revisions		
No.	Description	Date

Job Number: 23106

ROOF PLAN

**M2.1**





Section # & Req. ID	Final Inspection	Complies?	Comments/Assumptions
C403.3, C408.2.5, 2 (F117)	Furnished OEM instructions for systems and equipment to the building owner or designated representative.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.4.1 (F118)	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the interior Lighting fixture schedule for values.
C408.1.1 (F157)	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C408.2.5 (F116)	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C408.3 (F133)	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

**Additional Comments/Assumptions:**

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

Project Title: DON HARRELL D.D.S. Report date: 08/09/23  
 Data filename: P:\Public\223223071 Don Harrell Dental Office Knoxville TN\223071.cck Page 5 of 6

Section # & Req. ID	Final Inspection	Complies?	Comments/Assumptions
C405.2.1 (EL18)	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, 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 warehouses and section C405.2.1.3 for open plan office spaces.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.2.1 (EL19)	Occupancy sensors control function in warehouses: in warehouses, the lighting in aislesways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C405.2.1 (EL20)	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq ft. within the space, 2) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 3) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone, and 4) are configured such that any daylight responsive control will activate space general lighting or control zone general lighting only when occupancy for the same area is detected.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.2.2 (EL21)	Each area not served by occupancy sensors per C405.2.1 have time-switch controls and functions detailed in sections C405.2.2.1 and C405.2.2.2.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

**Additional Comments/Assumptions:**

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

Project Title: DON HARRELL D.D.S. Report date: 08/09/23  
 Data filename: P:\Public\223223071 Don Harrell Dental Office Knoxville TN\223071.cck Page 6 of 6

Section # & Req. ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.2 (EL22)	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 5% percent.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.2.1 (EL18)	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, 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 warehouses and section C405.2.1.3 for open plan office spaces.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.2.1 (EL19)	Occupancy sensors control function in warehouses: in warehouses, the lighting in aislesways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C405.2.1 (EL20)	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq ft. within the space, 2) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 3) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone, and 4) are configured such that any daylight responsive control will activate space general lighting or control zone general lighting only when occupancy for the same area is detected.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.2.2 (EL21)	Each area not served by occupancy sensors per C405.2.1 have time-switch controls and functions detailed in sections C405.2.2.1 and C405.2.2.2.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

**Additional Comments/Assumptions:**

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

Project Title: DON HARRELL D.D.S. Report date: 08/09/23  
 Data filename: P:\Public\223223071 Don Harrell Dental Office Knoxville TN\223071.cck Page 3 of 6

Section # & Req. ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3 (EL23)	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3.1 Daylight-responsive controls for applicable spaces. C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C405.2.4 (EL26)	Separate lighting control devices for specific uses installed per approved lighting plans.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.2.4 (EL27)	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.3 (EL6)	Exit signs do not exceed 5 watts per face.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.6 (EL26)	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C405.7 (EL27)	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C405.8.2 (EL28)	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C405.9 (EL29)	Total voltage drop across the combination of feeders and branch circuits <= 5%.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

**Additional Comments/Assumptions:**

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

Project Title: DON HARRELL D.D.S. Report date: 08/09/23  
 Data filename: P:\Public\223223071 Don Harrell Dental Office Knoxville TN\223071.cck Page 4 of 6

**COMcheck Software Version 4.1.5.5**

## Interior Lighting Compliance Certificate

**Project Information**

Energy Code: 2018 IECC  
 Project Title: DON HARRELL D.D.S.  
 Project Type: Alteration

Construction Site: 6701 BAUM DRIVE UNIT 165 KNOXVILLE, TN 37919  
 Owner/Agent: Designer/Contractor:

Area Category	B Floor Area (ft <sup>2</sup> )	C Allowed Watts / ft <sup>2</sup>	D Allowed Watts (B X C)
L-Office	1819	0.79	1437
Total Allowed Watts =			1437

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Watt. (C X D)
Office (1819 sq ft.)			
LED 1: A: 2X4 RECESSED TROFFER, Other:	1	39	34
Total Proposed Watts =			1326

**Interior Lighting PASSES**

**Interior Lighting Compliance Statement**

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

BRIAN M. ARMENTA - PE Signature: *Brian Armenta* Date: 08/09/2023

Project Title: DON HARRELL D.D.S. Report date: 08/09/23  
 Data filename: P:\Public\223223071 Don Harrell Dental Office Knoxville TN\223071.cck Page 1 of 6

**COMcheck Software Version 4.1.5.5**

## Inspection Checklist

Energy Code: 2018 IECC

Requirements: 100.0% 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 (PRA1)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input type="checkbox"/> Complies <input checked="" type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

**Additional Comments/Assumptions:**

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

Project Title: DON HARRELL D.D.S. Report date: 08/09/23  
 Data filename: P:\Public\223223071 Don Harrell Dental Office Knoxville TN\223071.cck Page 2 of 6

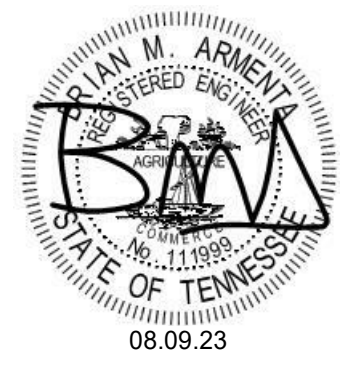


studio four design inc.  
 architecture | interiors  
 414 clinch avenue | knoxville, tn 37902  
 865.523.5001 | studiofourdesign.com



**PROFICIENT ENGINEERING**  
 4110 Sutherland Avenue  
 Knoxville, Tennessee 37919  
 865.409.5755  
 PROJECT # 223071

Description of the Project for/at:  
**Don Harrell D.D.S.**  
 6701 Baum Drive Unit 165  
 Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08/09/23

Revisions

No.	Description	Date

Job Number: 23106  
 COMPLIANCE REPORT

**E0.3**

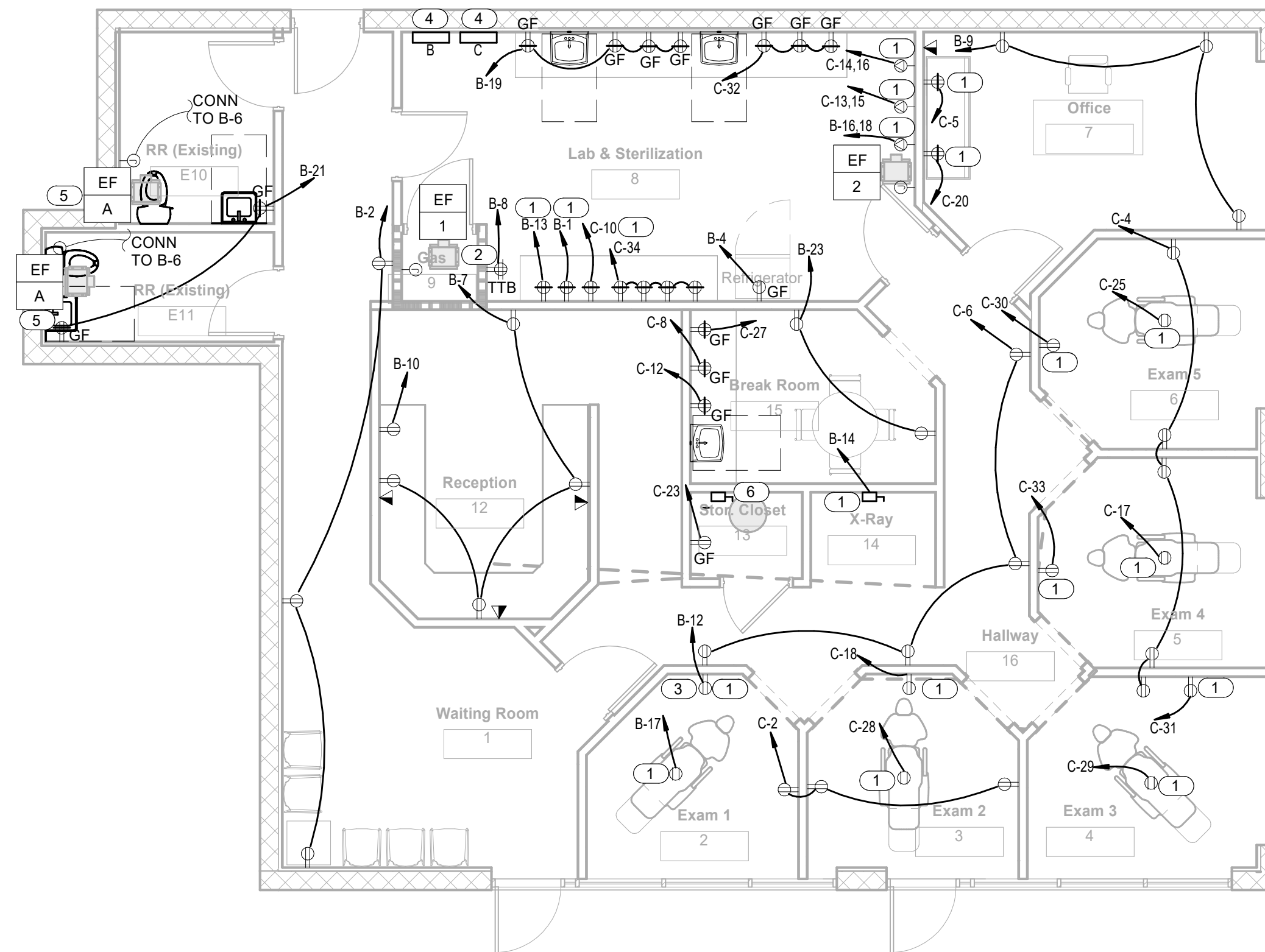
GENERAL EQUIPMENT SCHEDULE						
CALLOUT	EQUIPMENT NAME	VOLTS	LOAD	BREAKER	CIRCUIT	DISCONNECT DESCRIPTION
EF-1	EXHAUST FAN	120 V 1P 2W	0.0 KVA	20/1	C-1	CONTINUOUS
EF-2	EXHAUST FAN	120 V 1P 2W	0.2 KVA	20/1	C-3	INTERLOCK WITH COMPRESSOR
EF-A	EXHAUST FAN	120 V 1P 2W	0.1 KVA	20/1	B-6	SWITCH WITH LIGHTS
EF-A	EXHAUST FAN	120 V 1P 2W	0.1 KVA	20/1	B-6	SWITCH WITH LIGHTS
WH-1	WATER HEATER	208 V 2P 3W	3.0 KVA	20/2	C-19,21	30A/2P/NEMA 1

**GENERAL NOTES**

- A. DRAWINGS ARE DIAGRAMMATIC ONLY; FINAL DEVICE AND EQUIPMENT LOCATION AND ELEVATION TO BE DETERMINED IN FIELD. SEE ARCHITECTURAL DRAWINGS FOR FURTHER REQUIREMENTS.
- B. ALL RECEPTACLES SHALL BE GROUNDED AS REQUIRED BY ARTICLE 250-146.
- C. EXISTING HVAC EQUIPMENT ON ROOF TO REMAIN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION AND EXISTING CONDITIONS PRIOR TO COMMENCING WORK. REFER TO MECHANICAL DRAWINGS FOR FURTHER REQUIREMENTS.
- D. EXISTING FIRE ALARM DEVICES TO REMAIN.

**KEYNOTES**

- 1 EXISTING DENTAL EQUIPMENT FROM PREVIOUS LOCATION. COORDINATE EXACT REQUIREMENTS WITH OWNER PRIOR TO COMMENCING WORK.
- 2 FIELD COORDINATE EXACT LOCATION OF EXISTING TELEPHONE UTILITY CONDUIT AND LOCATE TELEPHONE TERMINAL BOARD.
- 3 OPERATORY ROOM X-RAY POWERED FROM MAIN X-RAY MACHINE. COORDINATE EXACT REQUIREMENTS WITH OWNER PRIOR TO COMMENCING WORK.
- 4 EXISTING ELECTRICAL PANEL RELOCATED TO LOCATION SHOWN. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
- 5 EXHAUST FAN TO BE CONTROLLED WITH LIGHT SWITCH.
- 6 WATER HEATER MOUNTED ON PLATFORM. REFER TO PLUMBING DRAWINGS FOR DETAIL AND FURTHER REQUIREMENTS.



1 Floor Plan - Level 1 - POWER  
3/16" = 1'-0"



studio four design inc.  
architecture | interiors  
414 clinch avenue | knoxville, tn 37902  
865.523.5001 | studiofourdesign.com



**PROFICIENT**  
ENGINEERING  
4110 Sutherland Avenue  
Knoxville, Tennessee 37919  
865.409.5755  
PROJECT # 223071

Description of the Project for/at:  
**Don Harrell D.D.S.**

6701 Baum Drive Unit 165  
Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08/09/23		
Revisions		
No.	Description	Date

Job Number: 23106

FLOOR PLAN

**E1.1**

Date: 8/10/2023 10:35:12 AM  
Checked By: BA  
Drawn By: CL  
File: C:\Users\lring\Documents\223071 Don Harrell Dental Office Knoxville TN - MEP-02.dwg\FB\B\B\N.rvt

© 2023 studio four design, inc.  
This drawing, its design detail and invention is the property of Studio Four Design, inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.

Date: 8/10/2023 11:46:24 AM  
 Drawn By: CL  
 Checked By: BA  
 File: C:\Users\rlng\Documents\223071 Don Harrell Dental Office Knoxville TN - MEP-02\_1.rvt

© 2023 studio four design, inc.  
 This drawing, its design detail and invention is the property of Studio Four Design, inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.

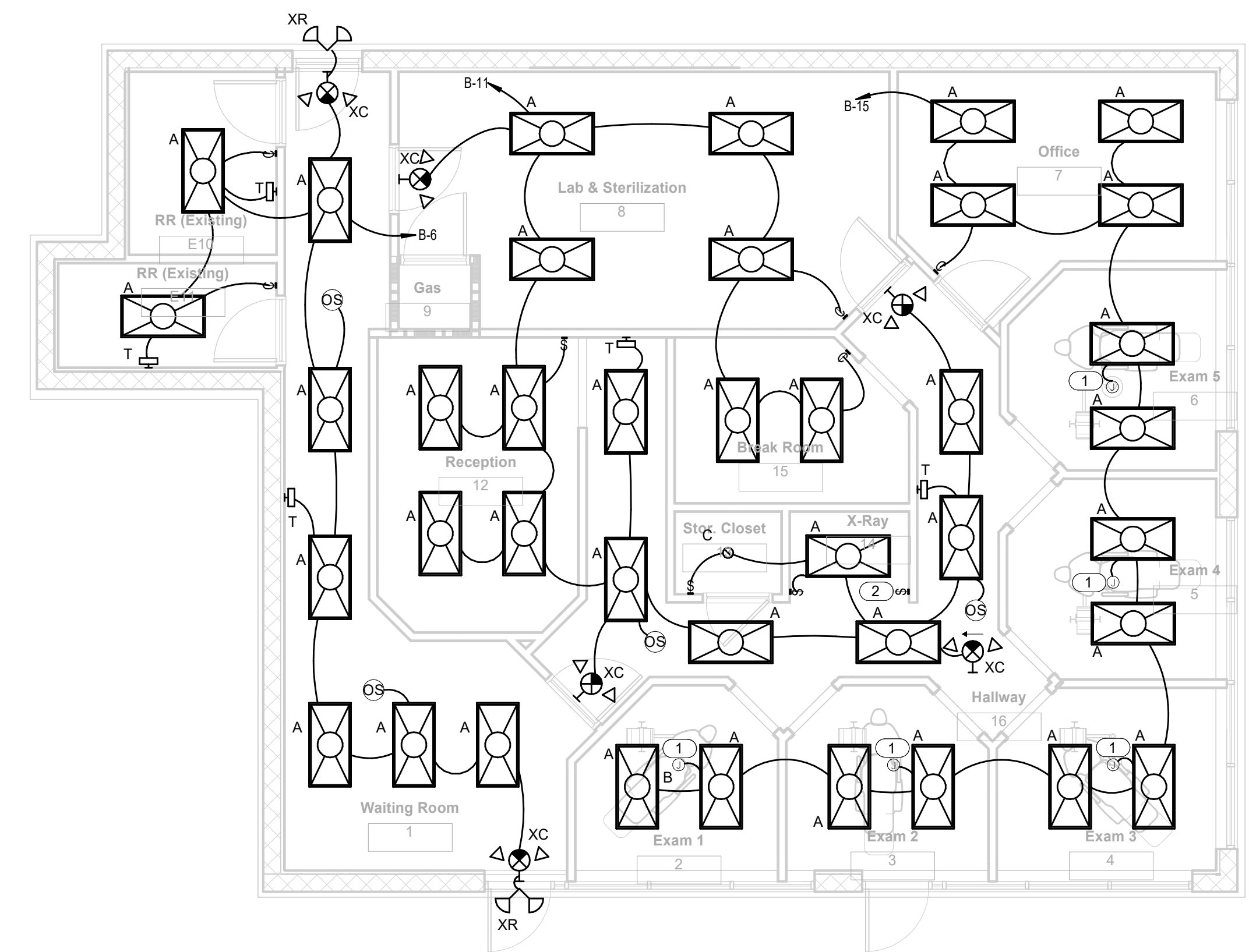
LUMINAIRE SCHEDULE				
CALLOUT	LAMP	DESCRIPTION	MODEL	VOLTS
A	(1) 34W LED	2x4 LED RECESSED TROFFER	TO BE DETERMINED	120V 1P 2W
B	(1) 150W LED	DENTAL LIGHT	EXISTING	120V 1P 2W
C	(1) 13W LED	CLOSET LIGHT	TO BE DETERMINED	120V 1P 2W
T	(2) 1.5W LED	EMERGENCY LIGHTING UNIT	LITHONIA ELM2-LED	120V 1P 2W
XC	(2) 1.5W LED	COMBINATION EXIT/EMERGENCY LIGHTING UNIT	LITHONIA LHQM-LED-R-HO	120V 1P 2W
XR	(1) 3W LED	REMOTE LAMP HEAD	LITHONIA ELA-QWP-L0309-SD	120V 1P 2W

**GENERAL NOTES**

- A. DRAWINGS ARE DIAGRAMMATIC ONLY; FINAL DEVICE AND EQUIPMENT LOCATION AND ELEVATION TO BE DETERMINED IN FIELD. SEE ARCHITECTURAL DRAWINGS FOR FURTHER REQUIREMENTS.
- B. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES.
- C. PROVIDE UNSWITCHED HOT LEG OF CIRCUIT TO EMERGENCY LIGHTING AND EXIT SIGNS.

**KEYNOTES**

- ① EXISTING DENTAL LIGHT FROM PREVIOUS LOCATION TO BE CONTROLLED WITH INTEGRATED LIGHT SWITCH. COORDINATE EXACT REQUIREMENTS WITH OWNER PRIOR TO COMMENCING WORK.
- ② MAIN OVERRIDE SWITCH TO CONTROL ALL OPERATORY ROOM LIGHT FIXTURES. COORDINATE CONTROL METHOD AND EXACT LOCATION OF OVERRIDE SWITCH WITH OWNER AND ARCHITECT PRIOR TO COMMENCING WORK.



1 Reflected Ceiling Plan - Level 1  
 E12 3/16" = 1'-0"



studio four design inc.  
 architecture | interiors  
 414 clinch avenue | knoxville, tn 37902  
 865.523.5001 | studiofourdesign.com



**PROFICIENT**  
 ENGINEERING  
 4110 Sutherland Avenue  
 Knoxville, Tennessee 37919  
 865.409.5755  
 PROJECT # 223071

Description of the Project for/at:  
**Don Harrell D.D.S.**  
 6701 Baum Drive Unit 165  
 Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08/09/23		
Revisions		
No.	Description	Date

Job Number: 23106

RCP

**E1.2**

Date: 8/30/2023 4:06:32 PM  
 Drawn By: CK  
 Checked By: TW  
 File: C:\Users\rlh\Documents\23071 Don Harrell Detail Office Knoxville, TN - MEP-02.dwg

© 2023 studio four design, inc. This drawing, its design details and invention is the property of Studio Four Design, Inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.

ABBREVIATIONS			
AAV	AIR ADMITTANCE VALVE	HWR	HOT WATER RETURN
A/C	ABOVE CEILING	IMB	ICE MACHINE BOX
A/F	ABOVE FLOOR	IE	INVERT ELEVATION
AFF, AFG	ABOVE FINISHED FLOOR/GRADE	L, LAV	LAVATORY
B/F	BELOW FLOOR	MBH	1000 BTU/HR
BFP	BACKFLOW PREVENTER	MS	MOP SINK
B/G	BELOW GRADE	MV	MIXING VALVE
CD	CONDENSATE DRAIN	O/H	OVERHEAD
CONT	CONTINUATION	G	NATURAL GAS
CW	COLD WATER	PRV	PRESSURE REDUCING VALVE
DN	DOWN	RP	RECIRCULATION PUMP
ET	EXPANSION TANK	S, SAN	SANITARY
EWV	ELECTRIC WATER COOLER	SH	SHOWER
ex.	EXISTING	SK	SINK
FCO	FLOOR CLEANOUT	TP	TRAP PRIMER
FD	FLOOR DRAIN	TYP	TYPICAL
FHB	FREEZEPROOF HOSE BIBB	UR	URINAL
FS	FLOOR SINK	V	VENT
FWH	FREEZEPROOF WALL HYDRANT	VTR	VENT THROUGH ROOF
GCO	GRADE CLEANOUT	WC	WATER CLOSET
GI	GREASE INTERCEPTOR	W.C.	WATER COLUMN
HB	HOSE BIBB	WCO	WALL CLEANOUT
HD	HUB DRAIN	WHA	WATER HAMMER ARRESTER
HW	HOT WATER	WMB	WASHING MACHINE BOX

LEGEND	
=====	COLD WATER PIPE
=====	HOT WATER PIPE
=====	HOT WATER RETURN PIPE
===== FW =====	FILTERED WATER PIPE
===== F =====	FIRE SPRINKLER PIPE
===== G =====	NATURAL GAS PIPE
=====	SANITARY PIPE
===== GW =====	GREASE WASTE PIPE
===== IW =====	INDIRECT WASTE PIPE
===== OW =====	OIL WASTE PIPE
===== EST =====	EMERGENCY STORM PIPE
===== ST =====	STORM PIPE
=====	VENT PIPE
----- B/F -----	PIPING B/F
===== O2 =====	OXYGEN PIPE
===== NO2 =====	NITROUS OXIDE PIPE
===== VAC =====	VACUUM PIPE

SPECIFICATIONS
<p><u>GENERAL</u>            ALL WORK SHALL COMPLY WITH ALL STATE, CITY AND LOCAL CODES, RULES AND REGULATIONS. CONTRACTOR SHALL SECURE ALL REQUIRED PERMITS AND INSPECTIONS ASSOCIATED WITH THIS WORK, AND SHALL PAY ALL COSTS AND FEES INVOLVED.</p> <p>ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE BEST RECOGNIZED PRACTICE IN THE FIELD CONCERNED. MANUFACTURED ITEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED DIRECTIONS, SPECIFICATIONS AND RECOMMENDATIONS.</p> <p>CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS AND SHALL BE FAMILIAR WITH THE SCOPE AND REQUIREMENTS OF THIS PROJECT. ANY DISCREPANCIES OR LACK OF CLARITY IN THE DOCUMENTS SHALL BE IDENTIFIED TO THE ARCHITECT OR ENGINEER PRIOR TO THE SUBMISSION OF PRICING BIDS. WITH A SUBMITTED BID, CONTRACTOR IS ACCEPTING THESE DOCUMENTS AS SUFFICIENT DEFINITION OF THE SCOPE OF WORK, AND ANY ADDITIONAL COSTS BASED ON UNCLARITY OF CONTRACT DOCUMENTS WILL NOT BE CONSIDERED.</p> <p>CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS FOR EQUIPMENT INSTALLATION PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS. ALL EQUIPMENT AND DEVICES SHALL BE INSTALLED SUCH THAT THEY ARE EASILY ACCESSIBLE AND SERVICABLE. THIS EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO PLUMBING FIXTURES, WATER HEATERS, EXPANSION TANKS, PUMPS, BACKFLOW PREVENTERS, VALVES, MIXING VALVES, THERMOMETERS, GAUGES, TRAP PRIMERS AND CLEANOUTS.</p> <p>THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE FULL SET OF CONSTRUCTION DOCUMENTS, INCLUDING ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL &amp; ELECTRICAL DRAWINGS (AS APPLICABLE) TO ENSURE ALL PLUMBING WORK IS COORDINATED WITH PHYSICAL CONDITIONS AND ALL OTHER TRADES.</p> <p>THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE ARCHITECTURAL DRAWINGS TO ENSURE THERE IS ADEQUATE WALL THICKNESS SUCH THAT ALL PIPING, FIXTURE CARRIERS, WALL CLEANOUTS, WALL BOXES, WALL HYDRANTS AND ACCESS PANELS WILL FIT IN THE WALL SPACE. CONTRACTOR SHALL NOTIFY THE ARCHITECT IF WALL SPACE IS INADEQUATE PRIOR TO COMMENCING WORK.</p> <p>THE CONTRACTOR SHALL OBTAIN EXACT WALL, FIXTURE, AND LAYOUT DIMENSIONS FROM THE ARCHITECTURAL DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ROUGH-IN AND INSTALLATION DRAWINGS FOR ALL PLUMBING FIXTURES, KITCHEN EQUIPMENT AND OWNER FURNISHED EQUIPMENT (AS APPLICABLE), AND SHALL COORDINATE THE PLUMBING INSTALLATION PRIOR TO COMMENCING THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING ALL NECESSARY VALVES, CONNECTIONS, TRAPS, ACCESS PANELS, UNIONS, ESCUTCHEONS, WATER HAMMER ARRESTORS, VACUUM BREAKERS, RELIEF VALVES, PIPE INSULATION, AND EQUIPMENT SPECIALTY DEVICES AS REQUIRED TO FACILITATE COMPLETE AND OPERATIONAL CONDITIONS WHICH ARE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.</p> <p>THESE DRAWINGS ARE DIAGRAMMATIC AND DO NOT REFLECT ALL POSSIBLE PHYSICAL CONDITIONS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND EXACT LOCATIONS OF EQUIPMENT AND FIXTURES. PROVIDE NECESSARY PIPING OFFSETS TO COORDINATE WITH THE BUILDING STRUCTURE, WORK OF OTHER TRADES, AND CONNECTION TO SITE UTILITIES (AS APPLICABLE).</p> <p>COORDINATE THE ELECTRICAL REQUIREMENTS AND CHARACTERISTICS OF ALL PLUMBING EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ISSUING SUBMITTALS OR PURCHASING EQUIPMENT.</p> <p>UNLESS NOTED OTHERWISE, ALL DRAINAGE PIPING SHALL BE SLOPED AT A MINIMUM OF 1/8" PER FOOT. 2" SANITARY PIPING AND ALL GREASE WASTE PIPING SHALL BE SLOPED AT 1/4" PER FOOT.</p> <p>DOMESTIC WATER PIPING SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILIZATION. PIPING TO BE FLUSHED AND STERILIZED IN ACCORDANCE WITH IPC 610.1 AND ALL APPLICABLE LOCAL AND STATE HEALTH DEPARTMENT STANDARDS.</p> <p>ALL DOMESTIC WATER PIPING SUBJECT TO FREEZING SHALL BE INSULATED AND PROVIDED WITH HEAT TRACE. CONDENSATE PIPING SUBJECT TO FREEZING WITHIN WALK-IN FREEZERS SHALL BE INSULATED AND PROVIDED WITH HEAT TRACE. PIPING INSTALLED IN EXTERIOR WALLS SHALL BE WRAPPED IN PIPE INSULATION AND BE LOCATED ON THE INTERIOR SIDE OF THE BUILDING INSULATION.</p> <p>IN CONCEALED LOCATIONS WHERE PIPING, OTHER THAN CAST-IRON OR GALVANIZED STEEL, IS INSTALLED THROUGH HOLES OR NOTCHES IN STUDS, JOISTS, OR SIMILAR MEMBERS LESS THAN 1 1/2" FROM THE NEAREST EDGE OF MEMBER, PIPE SHALL BE PROTECTED BY STEEL SHIELD PLATES IN ACCORDANCE WITH IPC 305.6.</p> <p>PIPE PENETRATIONS THROUGH FIRE RATED WALLS OR FLOORS SHALL HAVE EQUIVALENTLY RATED SLEEVES AND SHALL BE SEALED AND FIRE CALKED WITH A U.L. LISTED FIRE STOPPING SYSTEM INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S LISTED DETAILS AND SPECIFICATIONS.</p> <p>THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE REQUIREMENTS OF THE COUNTY HEALTH DEPARTMENT AND OTHER LOCAL AUTHORITIES HAVING JURISDICTION REGARDING CROSS CONNECTION CONTROL OR OBTAINING A FOOD SERVICE PERMIT (AS APPLICABLE). REPORT ANY OBSERVED DISCREPANCIES TO THE ARCHITECT OR ENGINEER PRIOR TO COMMENCING WITH THE WORK.</p> <p>CONTRACTOR SHALL CONFIRM PLUMBING FIXTURE FINISHES WITH THE ARCHITECTURAL SCHEDULES &amp; DETAILS (AS APPLICABLE).</p> <p><u>SUBMITTALS</u>            FURNISH SHOP DRAWINGS FOR MANUFACTURED PRODUCTS. ALL ITEMS SHALL BE CLEARLY MARKED TO MATCH EQUIPMENT MARKS ON THE PLUMBING DRAWINGS. ALL OPTIONS MUST BE CLEARLY MARKED ON THE SUBMITTAL SHEET. A MODEL NUMBER LISTING ON A COVER SHEET IS NOT AN ACCEPTABLE SUBSTITUTE FOR MARKING THE ACTUAL SUBMITTAL SHEET. ELECTRICAL DATA FOR POWERED EQUIPMENT MUST BE INDICATED ON THE SUBMITTAL SHEET FOR THAT ITEM.</p> <p>ALL ITEMS MUST BE SUBMITTED IN ONE PACKAGE AT THE SAME TIME, IN ELECTRONIC PDF FORMAT. SEPARATE SUBMITTALS FOR FIXTURES AND EQUIPMENT IS NOT ACCEPTABLE.</p> <p>SUBMITTAL REVIEW IS CONSIDERED A GENERAL ACCEPTANCE OF THE BASIC APPLICABILITY OF THE EQUIPMENT. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND/OR ALTERNATE ARRANGEMENT OF THE EQUIPMENT WITHIN A GIVEN SPACE. WHEN SUBSTITUTED EQUIPMENT IS INSTALLED, CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION OR ADDITIONAL COST BROUGHT ON BY THE USE OF THIS EQUIPMENT.</p> <p><u>HANGERS AND SUPPORTS</u>            HANGERS SHALL BE COMPLETE WITH RODS AND SUPPORTS PROPORTIONED TO THE SIZE OF PIPE TO BE SUPPORTED, IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.</p> <p>SIZE HANGERS FOR INSULATED PIPING TO BEAR ON OUTSIDE OF INSULATION. PROVIDE INSULATION PROTECTORS AT HANGERS BEARING ON THE OUTSIDE OF INSULATION. PROVIDE A RIGID INSERT OR RIGID INSULATION AT EACH INSULATION PROTECTOR.</p> <p>WHERE SEVERAL PIPES 2 1/2" AND SMALLER RUN PARALLEL AND IN THE SAME PLANE, THEY MAY BE SUPPORTED ON GANG OR MULTIPLE HANGERS. LARGER PIPING SHALL BE INDEPENDENTLY HUNG, RUN PARALLEL AND BE EQUALLY SPACED.</p> <p>PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH IPC SECTION 308, AND SPACING OF HANGERS SHALL NOT EXCEED THE LIMITS SET FORTH IN TABLE 308.5. PIPES SHALL BE SUPPORTED WITHIN 1'-0" OF EACH ELBOW.</p> <p>VERTICAL PIPE SUBJECT TO MOVEMENT SHALL BE SUPPORTED FROM THE WALL BY MEANS OF A PIPE CLAMP.</p> <p>SUPPORT DOMESTIC WATER PIPING IN SPACES BEHIND PLUMBING FIXTURES BY BRACKETS AND U-BOLTS SECURED TO WASTE AND VENT STACKS. SIZE U-BOLTS TO BEAR ON THE PIPING.</p> <p>AFTER HANGER RODS ARE INSTALLED IN FINISHED CONCRETE CEILING, FILL THE REMAINING OPENING WITH CEMENT SO THAT NO HOLE SHOWS AT THE CEILING.</p> <p>WHERE COPPER PIPING IS USED, NONFERROUS METAL SUPPORT(S) OR PROPER ISOLATION BETWEEN DISSIMILAR MATERIALS SHALL BE PROVIDED.</p> <p>PIPE HANGERS AND SUPPORTS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH RECOMMENDATIONS SET FORTH IN MANUFACTURER'S STANDARDIZATION SOCIETY STANDARD PRACTICES NO. SP-69 AND SP-58.</p> <p><u>WASTE AND VENT PIPING SYSTEMS AND ACCESSORIES</u>            SANITARY PIPING SHALL BE PVC SCHEDULE 40 SOLID WALL PIPE AND DWV FITTING SYSTEM.</p> <p>PIPE AND FITTINGS SHALL BE MANUFACTURED FROM PVC COMPOUND WITH A CELL CLASS OF 12454 PER ASTM D-1784 AND CONFORM WITH NATIONAL SANITATION FOUNDATION (NSF) STANDARD 14. PIPE SHALL BE IRON PIPE SIZE (IPS) CONFORMING TO ASTM D-1785 AND ASTM D-2665. INJECTION MOLDED FITTINGS SHALL CONFORM TO ASTM D-2665. FABRICATED FITTINGS SHALL CONFORM TO ASTM F-1866. SOLVENT CEMENTS SHALL CONFORM TO ASTM D-2564. PRIMER SHALL CONFORM TO ASTM F-656. BURIED PIPE SHALL CONFORM TO ASTM D-2321.</p> <p>WASTE AND VENT PIPING SHALL BE TESTED IN ACCORDANCE WITH THE GOVERNING CODES. AT A MINIMUM, WASTE PIPING SHALL BE TESTED WITH AT LEAST 10 FOOT OF WATER HEAD PRESSURE APPLIED. TESTING WITH AIR IS NOT ALLOWED.</p> <p>ALL VENTS THROUGH ROOF SHALL BE LOCATED AT LEAST 10'-0" AWAY FROM ANY AIR INTAKE, EVAPORATIVE COOLER, OR ANY OTHER DEVICE THAT WOULD DRAW AIR FROM THE VENT. FLASH AROUND ALL PIPES PENETRATING THROUGH ROOF WITH STANDARD MANUFACTURED FLASHINGS. FLASHING SHALL BE SHEET METAL WITH RUBBER GASKETS AND SHALL EXTEND INTO ROOFING AND UP PIPE DISTANCES IN ACCORDANCE WITH THE LOCAL CODE.</p> <p>NO DOUBLE COMBINATION FITTINGS MAY BE UTILIZED IN THE HORIZONTAL.</p> <p>WHERE TWO HORIZONTAL PIPES (BACK-TO-BACK WATER CLOSETS OR TWO SANITARY BRANCHES) COMBINE IN THE VERTICAL, A DOUBLE COMBINATION WYE EIGHTH BEND FITTING SHALL BE INSTALLED. DOUBLE SANITARY TEE OR SANITARY CROSS IS NOT ACCEPTABLE.</p> <p>WHERE DRAWINGS REQUIRE CONNECTION TO EXISTING SANITARY SEWER PIPING IN BUILDING, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD DETERMINE EXACT LOCATION, DEPTH AND DIRECTION OF FLOW PRIOR TO COMMENCING WORK. PROVIDE SCOPING OF BELOW FLOOR PIPING AS NECESSARY TO GATHER THIS INFORMATION. CONTRACTOR SHALL ALERT ENGINEER IF THERE IS A POTENTIAL ISSUE MAINTAINING PROPER SLOPE IN CONNECTING TO EXISTING, OR IF THERE IS A MORE DIRECT CONNECTION POSSIBLE.</p>

SPECIFICATIONS
<p><u>SLEEVES</u>            SLEEVES SHALL BE PROVIDED WHERE PIPES PASS THROUGH WALLS, FLOORS AND ROOFS. PROVIDE STANDARD WEIGHT STEEL SLEEVES IN CONCRETE AND MASONRY CONSTRUCTION, PROVIDE 26GA GALVANIZED SHEET METAL SLEEVES IN INTERIOR DRYWALL CONSTRUCTION. SLEEVES SHALL BE THE FULL THICKNESS OF WALLS AND SHALL ALLOW FOR THE FULL THICKNESS OF PIPE INSULATION, WHERE APPLICABLE.</p> <p>SLEEVES MAY BE OMITTED WHEN OPENINGS ARE CORE DRILLED FOR CONCEALED VERTICAL AND HORIZONTAL PIPING. SLEEVES ARE NOT REQUIRED AT INDIVIDUAL PLUMBING FIXTURES OR IN CONCRETE FLOOR SLABS ON GRADE, UNLESS OTHERWISE NOTED.</p> <p>SLEEVES FOR ALL PIPING PENETRATING FIRE RATED WALLS AND FLOORS SHALL BE PROVIDED WITH 3M PIPE BARRIER NO. CP-25 FIRE PROOFING CAULKING, OR EQUAL, IN ANNULAR SPACE BETWEEN SLEEVE AND PIPING. CONTRACTOR SHALL VERIFY THE RATING OF THE WALL AND CONFIRM THE PENETRATION PROTECTION PROVIDED MEETS THAT RATING.</p> <p>PENETRATIONS THROUGH OUTSIDE WALLS SHALL BE WATERTIGHT. CAULK BETWEEN PLUMBING PIPE AND SLEEVE. PACK WITH FIBERGLASS AND CAULK, 1" DEEP AT EACH FACE WITH NON-HARDENING SEALANT BETWEEN PIPE AND SLEEVE.</p> <p><u>DOMESTIC WATER SYSTEMS AND ACCESSORIES</u>            WATER PIPING ABOVE SLAB: TYPE 'L' HARD DRAWN COPPER TUBING, ASTM B88, WROUGHT SOLDER JOINTS, ANSI B16.22.</p> <p>WATER PIPING BELOW SLAB: TYPE 'K' SOFT DRAWN COPPER TUBING, WITH NO JOINTS BELOW SLAB, ASTM B88.</p> <p>ALL DOMESTIC HOT WATER PIPING SHALL HAVE A MINIMUM PRESSURE RATING OF 100PSI AT 180°F.</p> <p>DOMESTIC WATER PIPING SHALL BE TESTED IN ACCORDANCE WITH ALL GOVERNING CODES. PIPING SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILIZATION. PIPING TO BE FLUSHED AND STERILIZED IN ACCORDANCE WITH IPC 610.1 AND ALL APPLICABLE LOCAL AND STATE HEALTH DEPARTMENT STANDARDS.</p> <p>BALL VALVES SHALL BE TWO-PIECE BRONZE BODY, LARGE PORT WITH SOLID, SMOOTH BORE CHROME PLATED BRASS BALL. SEATS SHALL BE REINFORCED WITH TEFLOM PACKING RING AND PROVIDE ADJUSTABLE PACKING NUT. PROVIDE STEM EXTENSION AS NEEDED TO PROVIDE HANDLE ON OUTSIDE OF PIPE INSULATION. VALVES SHALL BE APOLLO 70 OR EQUAL.</p> <p>BACKFLOW PREVENTERS SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS FOR EASE OF TESTING AND SERVICING. FOR BACKFLOW PREVENTERS WITH VENT CONNECTIONS, ROUTE VENT LINE TO NEAREST DRAIN AND DISCHARGE WITH AIR GAP. BACKFLOW PREVENTERS SHALL BE TESTED IN ACCORDANCE WITH IPC 312.10.2. CONTRACTOR SHALL PROVIDE CERTIFICATIONS THAT STATE DEVICES HAVE BEEN TESTED AND APPROVED.</p> <p>THERMOMETERS SHALL BE 9" ADJUSTABLE ANGLE, 30°-180°F RANGE (TRECIRE BX9 OR EQUAL). PRESSURE GAUGES SHALL BE 4 1/2" DIAL SIZE, 0-160PSI (TRECIRE 600CB OR EQUAL).</p> <p>CONTRACTOR SHALL FIELD VERIFY INCOMING DOMESTIC WATER PRESSURE. WHERE PRESSURE EXCEEDS 80PSI, PROVIDE PRESSURE REGULATING VALVE (WATTS LF223) AND UPSTREAM STRAINER (WATTS LSF777).</p> <p>CONTRACTOR SHALL FIELD COORDINATE LOCATION OF ACCESSIBLE ISOLATION VALVES ON DOMESTIC HOT &amp; COLD WATER SUPPLIES TO FIXTURES OR GROUPS OF FIXTURES SUCH THAT THEY MAY BE SHUT OFF FOR SERVICING. SERVICE AND HOSE BIBB VALVES SHALL BE IDENTIFIED. ALL OTHER VALVES INSTALLED IN LOCATIONS THAT ARE NOT ADJACENT TO THE FIXTURE(S) SHALL BE IDENTIFIED, INDICATING THE FIXTURE(S) SERVED.</p> <p><u>INSULATION</u>            INSULATE ALL DOMESTIC HOT WATER AND HOT WATER RECIRCULATION PIPING IN ACCORDANCE WITH IECC TABLE C403.2.10. PIPE UP TO 1 1/4": 1" THICK INSULATION. PIPE 1 1/2" OR LARGER: 1 1/2" THICK INSULATION.</p> <p>INSULATE ALL HORIZONTAL COLD WATER PIPING LOCATED ABOVE CEILING, VERTICAL PIPING LOCATED IN AN EXTERIOR WALL, EXPOSED PIPING (I.E. MECH ROOMS), PIPE UP TO 1": 1/2" THICK. PIPING 1 1/4" AND OVER: 1" THICK INSULATION.</p> <p>ALL JOINTS SHALL BE SEALED WITH MATCHING VAPOR BARRIER TAPE.</p> <p>INSULATION SHALL HAVE A K-FACTOR (AVERAGE THERMAL CONDUCTIVITY) NOT TO EXCEED 0.27 BTU-IN/HR x SQFT x "F".</p> <p><u>NATURAL GAS SYSTEMS AND ACCESSORIES</u>            IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE LOCAL GAS UTILITY PROVIDER TO CONFIRM THE AVAILABILITY OF THE INDICATED DESIGN DELIVERY PRESSURE PRIOR TO COMMENCING WORK.</p> <p>ALL GAS PIPING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE INTERNATIONAL FUEL GAS CODE AND NFPA 54.</p> <p>GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL (ASTM A53/A53M). FITTINGS SHALL BE ASME B16.3 MALLEABLE IRON OR ASTM A234/A234M WROUGHT STEEL WELDING TYPE. JOINTS SHALL BE THREADED OR WELDED TO ASME B31.1.</p> <p>ALL GAS FIRED APPLIANCES ARE PROVIDED WITH A GAS PRESSURE OF 7"W.C. AT FINAL EQUIPMENT CONNECTION. IF 7"W.C. EXCEEDS EQUIPMENT'S SPECIFIC INLET PRESSURE REQUIREMENT, CONTRACTOR SHALL PROVIDE APPROPRIATE PRESSURE REGULATING VALVE.</p> <p>GAS PIPING ON ROOF SURFACES SHALL BE ELEVATED NO LESS THAN 3 1/2" INCHES ABOVE ROOF SURFACE AND SHALL BE CLAMPED TO RUBBER CHANNEL SUPPORTS (MIFAB C10 SERIES OR EQUAL). PROVIDE SUPPORT AT EVERY ELBOW. THE MAXIMUM SPACING OF SUPPORTS SHALL BE: 1/2" PIPE: 5'-0", 3/4" TO 1 1/4" PIPING: 6'-0", 1 1/2" AND LARGER: 12'-0". VERTICAL PIPING SHALL BE SUPPORTED AT BASE, TOP AND AT 10' INTERVALS (MINIMUM).</p> <p>ALL EXTERIOR GAS PIPING SHALL BE PRIMED AND PAINTED O.S.H.A. YELLOW ON ROOF OR PAINTED TO MATCH BUILDING'S EXTERIOR WALLS WHERE VISIBLE.</p> <p>EXPOSED GAS PIPING SHALL BE IDENTIFIED BY A YELLOW LABEL MARKED 'GAS' IN BLACK LETTERS. ALL PIPING GREATER THAN 7"W.C. SERVICE PRESSURE SHALL BE IDENTIFIED BY A YELLOW LABEL WITH BLACK LETTERS INDICATING THE PIPING SYSTEM PRESSURE. THE SYSTEM SHALL BE MARKED AT THE BEGINNING, ALL ENDS AND AT INTERVALS NOT EXCEEDING 5 FEET ALONG ITS EXPOSED LENGTH.</p> <p>BALL VALVES: THREE PIECE BODY, FULL PORT, CHROME PLATED BALL, BLOWOUT PROOF STEM, TFE SEATS, UL LISTED FOR FLAMMABLE LIQUIDS, 600 PSI WOG, THREADED ENDS.</p> <p>PRESSURE REGULATOR VALVE: SINGLE STAGE AND SUITABLE FOR NATURAL GAS, STEEL JACKET AND CORROSION RESISTANT COMPONENTS, THREADED FOR REGULATORS NPS 2 AND SMALLER. PROVIDE SHUTOFF VALVE IMMEDIATELY AHEAD OF REGULATOR. AND INSTALL TEST PORTS ON EITHER SIDE. REGULATOR, WITH UPSTREAM TEST PORT DOWNSTREAM OF SHUTOFF VALVE. REGULATORS SHALL BE INSTALLED PER IFGC SECTION 410. FOR 2PSI INLET, PROVIDE MAXITROL '325-L' SERIES. PROVIDE VENT PROTECTOR FOR EXTERIOR APPLICATIONS. FOR INTERIOR APPLICATIONS, VENT SHALL BE PIPED TO THE EXTERIOR WITH TURNDOWN AND SCREEN PROTECTOR.</p> <p>SHUTOFF VALVES SHALL BE PROVIDED IN ACCORDANCE WITH IFGC 409. INSTALL MANUAL GAS SHUTOFF VALVE FOR EACH GAS APPLIANCE AHEAD OF CORRUGATED STAINLESS STEEL TUBING OR COPPER CONNECTOR. SHUTOFF SHALL BE WITHIN 6' OF APPLIANCE.</p> <p>INSTALL UNIONS IN PIPES NPS 2 AND SMALLER, ADJACENT TO EACH VALVE, AT FINAL CONNECTION TO EACH PIECE OF EQUIPMENT.</p> <p>ALL NATURAL GAS PIPING INSTALLED BENEATH THE BUILDING SLAB SHALL BE ENCASED IN WROUGHT IRON CONDUIT. PIPING SHALL BE PROTECTED AND INSTALLED ACCORDING TO THE INTERNATIONAL FUEL GAS CODE SECTION 404.14.</p> <p><u>TANK TYPE WATER HEATERS</u>            WATER HEATERS SHALL BE U.L. LISTED AND SHALL MEET OR EXCEED THE STANDBY LOSS REQUIREMENTS OF U.S. DEPT. OF ENERGY AND CURRENT EDITION OF ASHRAE/IESNA 90.1.</p> <p>WATER HEATERS SHALL HAVE 150PSI WORKING PRESSURE AND BE EQUIPPED WITH EXTRUDED HIGH DENSITY ANODE ROD AND HIGH TEMPERATURE CUTOFF SWITCH. WATER HEATERS SHALL BE THERMOSTATICALLY CONTROLLED AND SET TO 120° UNLESS OTHERWISE NOTED. WATER HEATERS SHALL BE INSTALLED ON SUSPENDED PLATFORM, STEEL STAND OR CONCRETE PAD, AS INDICATED ON DRAWINGS.</p> <p>WATER HEATERS SHALL HAVE A MINIMUM 3 YEAR LIMITED WARRANTY.</p> <p>WATER HEATERS SHALL BE INSTALLED LEVEL AND PLUMB. FIELD COORDINATE EXACT WATER HEATER LOCATION. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES, AND INSTALL SUCH THAT CONTROLS AND DEVICES ARE ACCESSIBLE FOR SERVICING.</p> <p>INSTALL SHUTOFF VALVES IN COLD WATER INLET AND HOT WATER OUTLET. INSTALL THERMOMETER ON HOT WATER OUTLET. WATER HEATER SHALL HAVE ASME RATED COMBINATION TEMPERATURE AND PRESSURE RELIEF VALVE IN TOP PORTION OF TANK (FACTORY OR FIELD INSTALLED). PIPE RELIEF VALVE OUTLET TO FLOOR DRAIN, MOP SINK, INDIRECT WASTE RECEPTOR OR TO EXTERIOR. MAINTAIN CONTINUOUS DOWNWARD PITCH TOWARD DISCHARGE LOCATION, AND PROVIDE AIR GAP AT DISCHARGE LOCATION. WHERE WATER HEATER DRAIN PAN IS INDICATED ON PLANS, ROUTE DRAIN TO SAME LOCATION AS RELIEF VALVE AND DISCHARGE WITH AIR GAP.</p>



studio four design inc.  
 architecture | interiors  
 414 clinch avenue | knoxville, tn 37902  
 865.523.5001 | studiofourdesign.com



**PROFICIENT**  
 ENGINEERING

4110 Sutherland Avenue  
 Knoxville, Tennessee 37919  
 865.409.5755  
 PROJECT # 223071

Description of the Project for/at:  
**Don Harrell D.D.S.**

6701 Baum Drive Unit 165  
 Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08/09/23

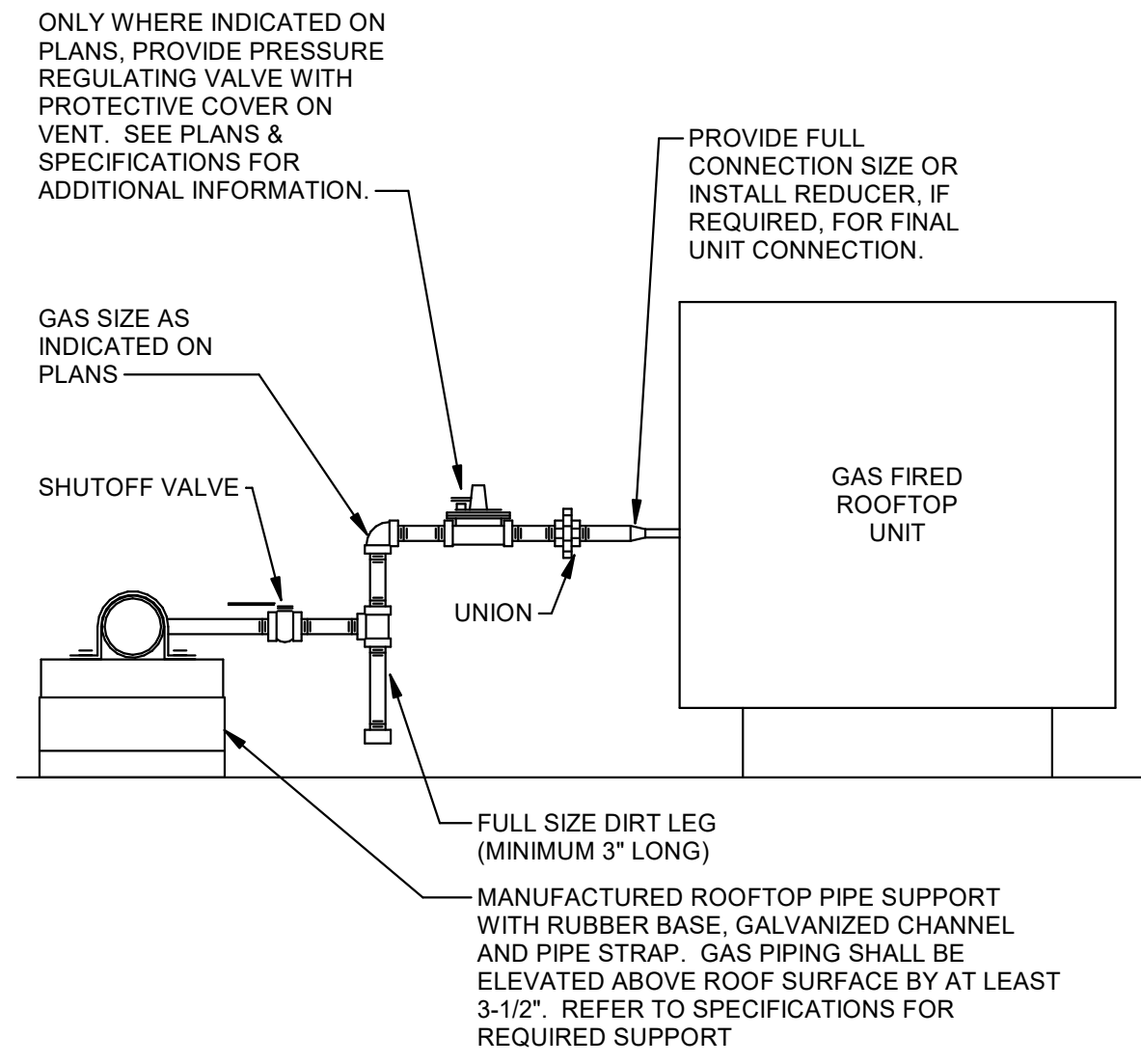
Revisions

No.	Description	Date

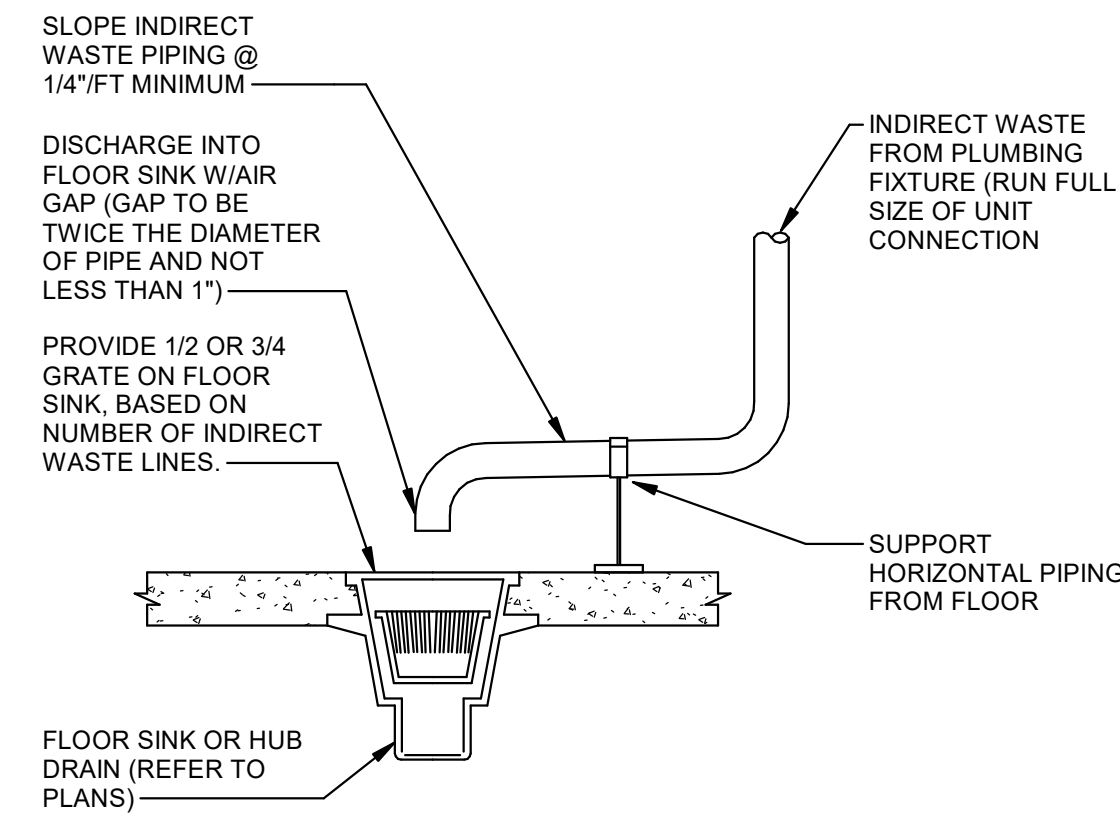
Job Number: 23106

GENERAL

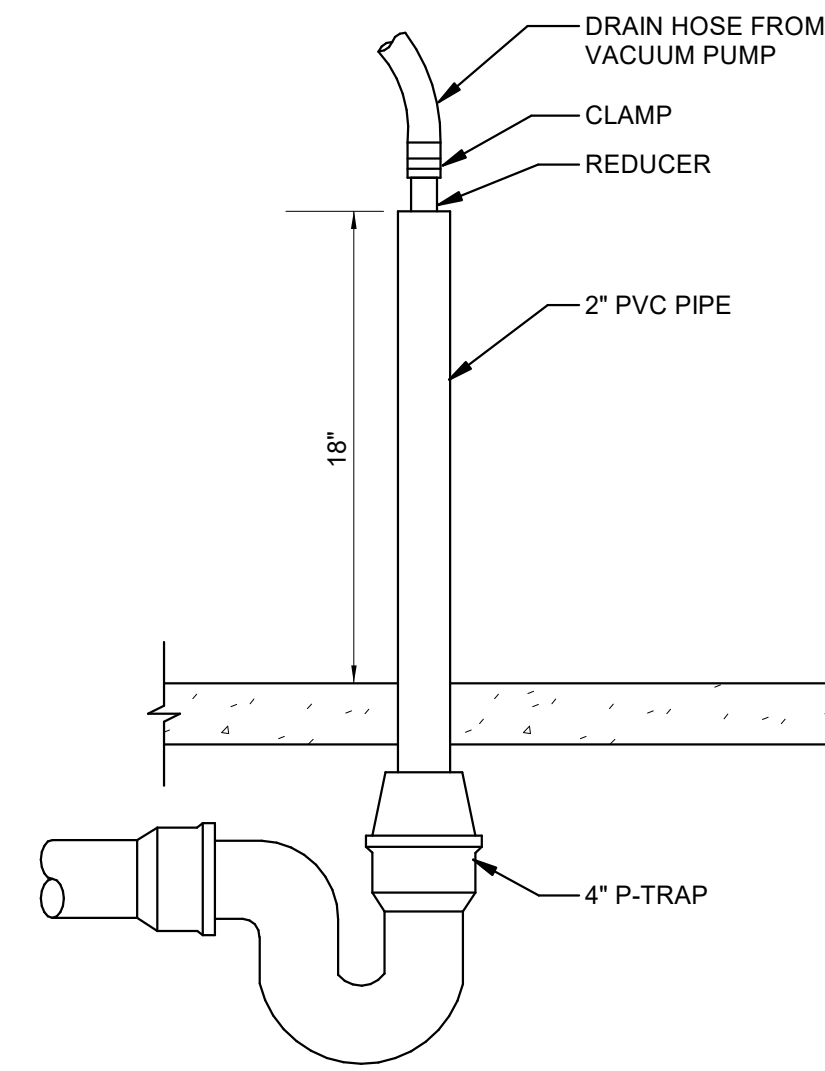
P0.1



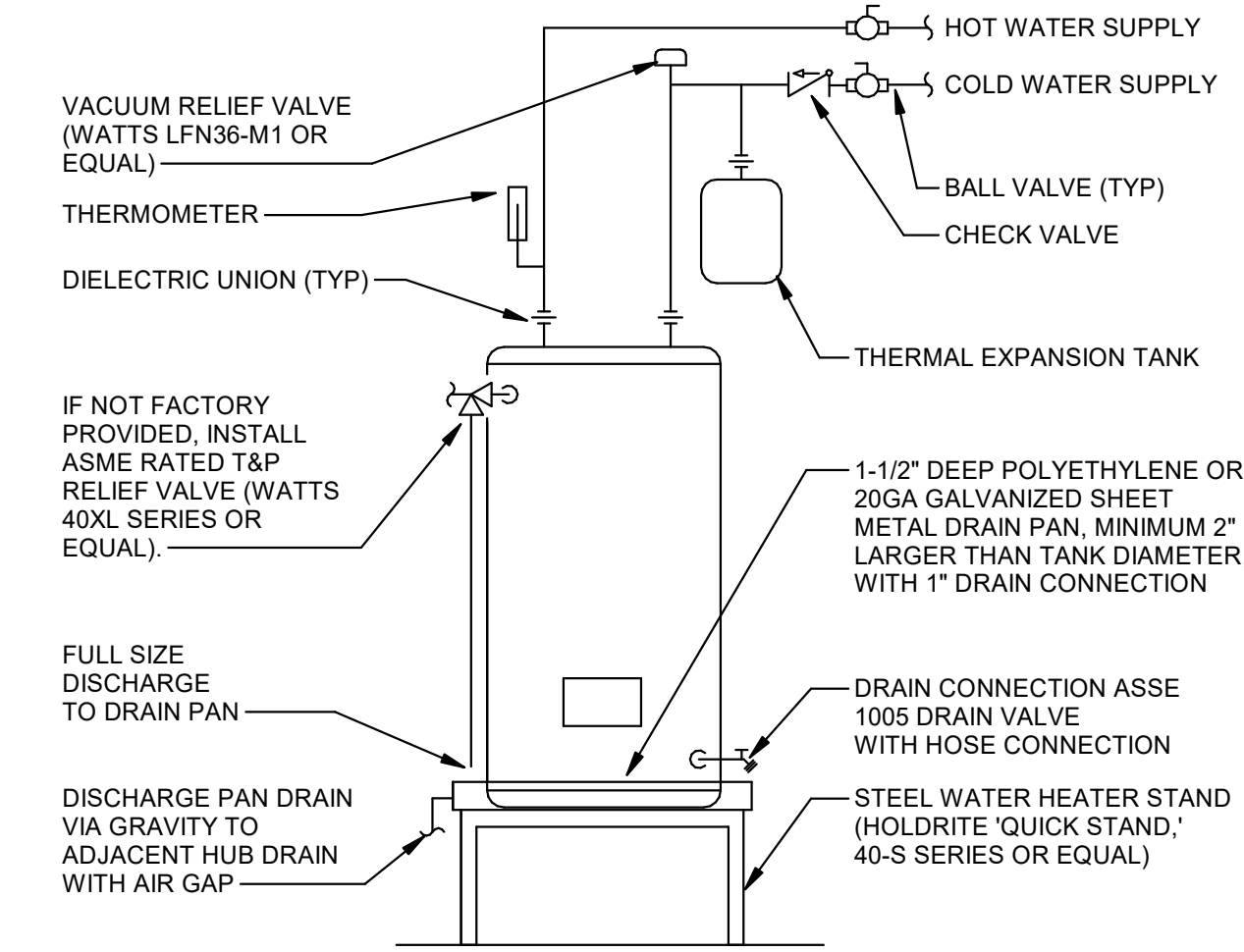
4 ROOFTOP UNIT GAS CONNECTION  
P02 N.T.S.



3 INDIRECT WASTE DETAIL  
P02 N.T.S.



2 VACUUM PUMP DRAIN LINE  
P02 N.T.S.



1 ELECTRIC WATER HEATER  
P02 N.T.S.

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	WASTE RUNOUT	WASTE CONN.	VENT	WATER RUNOUT		WATER CONN.		SPECIFICATION
					CW	HW	CW	HW	
HD-1	HUB DRAIN	see plan	see plan	---	---	---	---	---	SILOUX CHIEF 832 SERIES ADJUSTABLE HUB DRAIN FIXTURE, PROVIDE STAINLESS STEEL MESH DEBRIS BASKET. PROVIDE ASSE 1072 TRAP SEALER (ZURN Z1072).
FCO	FLOOR CLEANOUT	see plan	see plan	---	---	---	---	---	FLOOR CLEANOUT WITH CAST IRON BODY AND ADJUSTABLE NICKEL BRONZE TOP (J.R. SMITH 4031). CLEANOUT SIZE SHALL MATCH LINE SIZE.
ET-1	POTABLE WATER EXPANSION TANK	---	---	---	3/4"	---	3/4"	---	LEAD-FREE POTABLE WATER EXPANSION TANK (WATTS PLT-5). 2.1 GALLONS TOTAL VOLUME, 0.8 GALLONS MAXIMUM ACCEPTANCE VOLUME. TANK SHALL BE PRE-CHARGED TO THE SYSTEM PRESSURE PRIOR TO INSTALLATION (CONTRACTOR TO FIELD-VERIFY).

PRIOR TO SUBMITTAL OR PURCHASE, THE PLUMBING CONTRACTOR SHALL VERIFY FIXTURE SPECIFICATIONS WITH ARCHITECT/OWNER

ELECTRIC WATER HEATER SCHEDULE

MARK	TANK CAPACITY	RECOVERY	SETPOINT	ELECTRICAL	BASIS	TYPE
WH-1	30 GAL	15 GPH @ 80° RISE	120°	3.0 KW	A.O. SMITH DEL-30	LOWBOY

PRIOR TO SUBMITTAL OR PURCHASE, THE PLUMBING CONTRACTOR SHALL VERIFY THE APPROPRIATE ELECTRICAL CHARACTERISTICS OF THE SELECTED WATER HEATER. COORDINATE DIRECTLY WITH THE ELECTRICAL CONTRACTOR AND THE POWER PANEL SCHEDULES ON THE ELECTRICAL DRAWINGS.



studio four design inc.  
architecture | interiors  
414 clinch avenue | knoxville, tn 37902  
865.523.5001 | studiofourdesign.com



PROFICIENT  
ENGINEERING  
4110 Sutherland Avenue  
Knoxville, Tennessee 37919  
865.409.5755  
PROJECT # 223071

Description of the Project for/at:  
**Don Harrell D.D.S.**

6701 Baum Drive Unit 165  
Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08/09/23

No.	Description	Date

Job Number: 23106  
SCHEDULES & DETAILS

P0.2

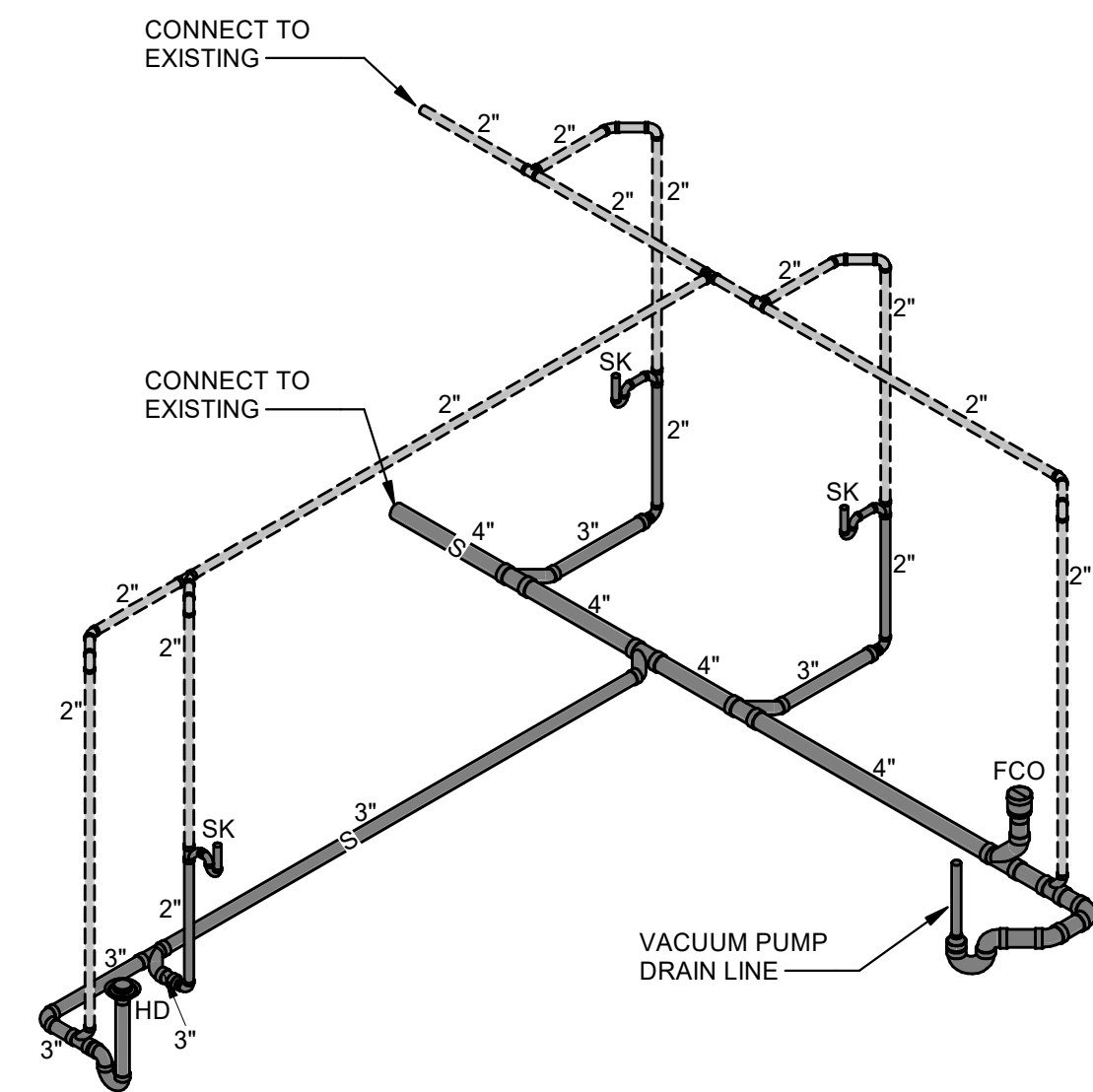
Date: 8/9/2023 4:06:33 PM  
Checked By: TW  
Drawn By: CK  
File: C:\Users\sting\Documents\223071 Don Harrell Dental Office Knoxville TN - MEP-02\_insp\FB\BIBN.rvt

© 2023 studio four design, inc. This drawing, its design detail and invention is the property of Studio Four Design, inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.



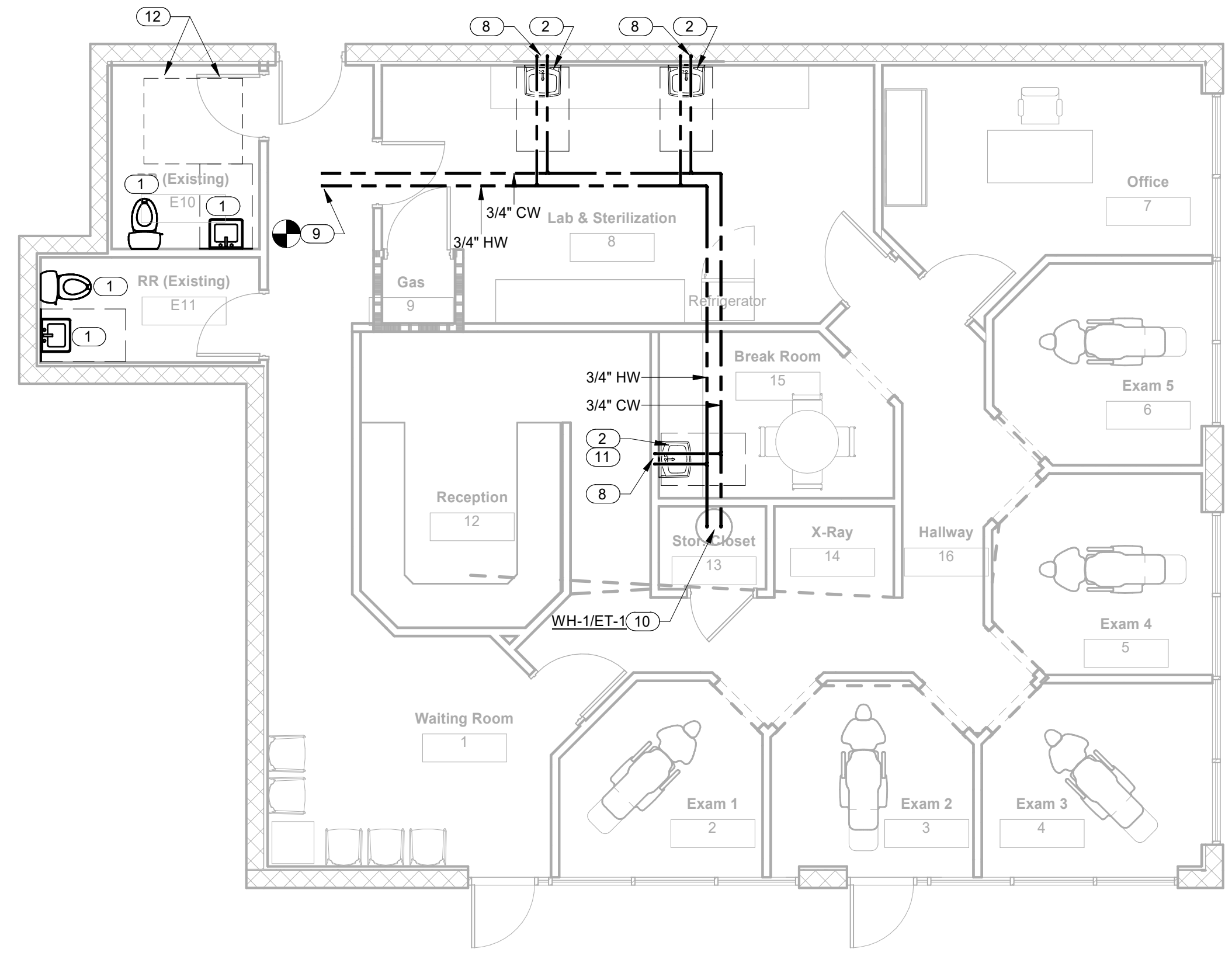
Date: 8/9/2023 4:06:34 PM  
 Drawn By: CK  
 Checked By: TW  
 File: C:\Users\rlng\Documents\223071 Don Harrell Dental Office Knoxville, TN - MEP-02\_1.rvt

© 2023 studio four design, inc.  
 This drawing, its design detail and invention is the property of Studio Four Design, inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.

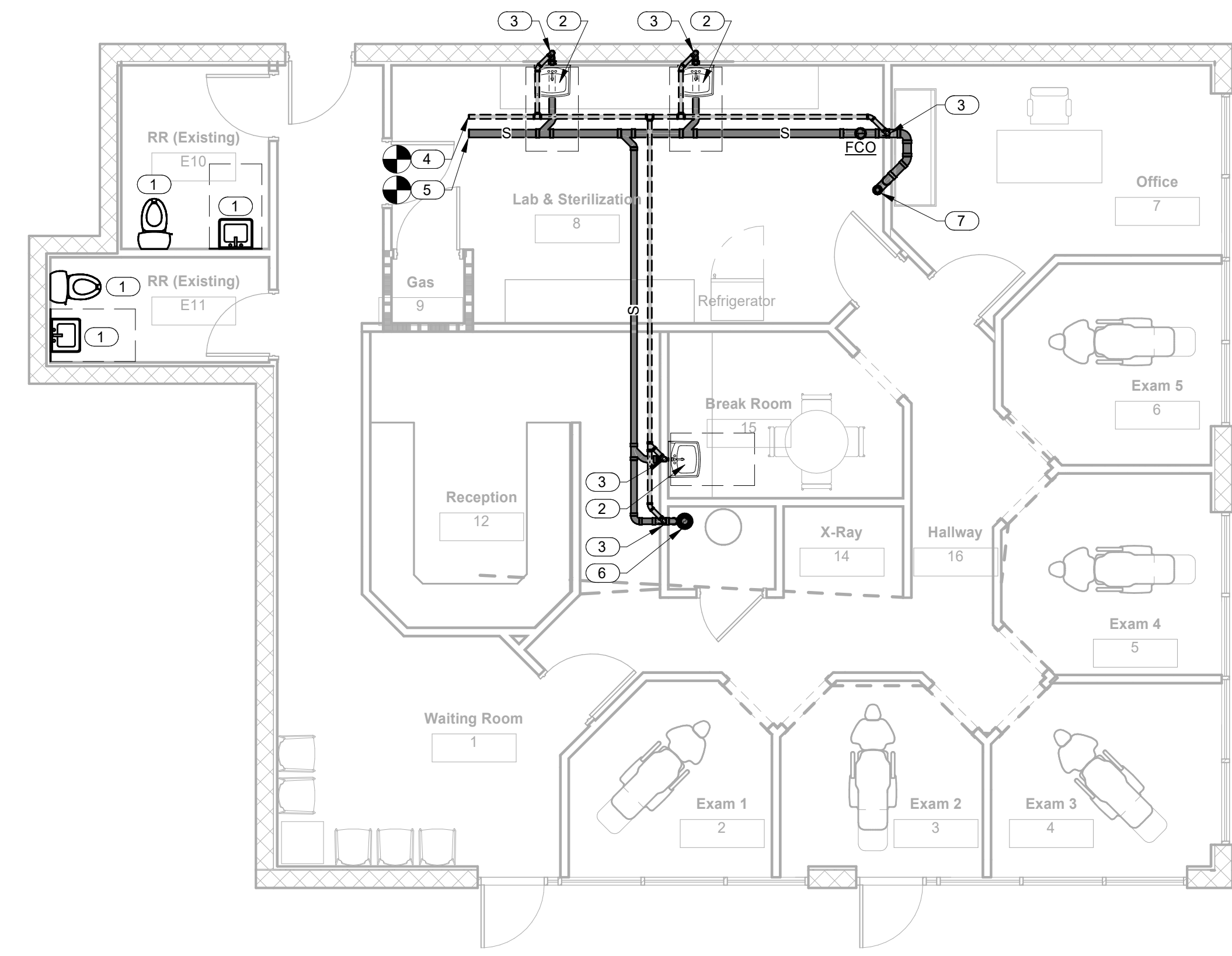


- KEYNOTES**
- 1 EXISTING PLUMBING FIXTURE TO REMAIN
  - 2 PLUMBING FIXTURE TO BE PROVIDED BY OWNER
  - 3 2" V DN
  - 4 2" V A/C & CONNECT TO EXISTING VENT PIPING. FIELD VERIFY EXACT LOCATION PRIOR TO COMMENCING WORK.
  - 5 4" S B/F. COMBINE WITH SANITARY DRAINAGE DOWNSTREAM OF EXISTING BATHROOM GROUP. FIELD VERIFY EXACT LOCATION, DEPTH AND DIRECTION OF FLOW PRIOR TO COMMENCING WORK.
  - 6 3" HUB DRAIN HD-1. DISCHARGE ALL NEARBY INDIRECT WASTE CONNECTIONS FULL SIZE W/ AIR GAP AT LEAST TWICE THE DIAMETER OF INDIRECT WASTE PIPE (SEE DETAIL). FIELD COORDINATE WITH INSTALLED EQUIPMENT.
  - 7 DISCHARGE VACUUM PUMP DRAINAGE HOSE INTO STANDPIPE DRAIN WITH AIR GAS. SEE DETAIL.
  - 8 1/2" CW & 1/2" HW DN
  - 9 3/4" CW & 3/4" HW A/C & CONNECT TO EXISTING WATER PIPING. FIELD VERIFY SIZE AND EXACT LOCATION.
  - 10 3/4" CW & 3/4" HW TO STAND MOUNTED WATER HEATER. SEE DETAIL.
  - 11 TEE 1/2" CW & 1/2" HW TO FAUCET MOUNTED EYEWASH. PROVIDE EMERGENCY THERMOSTATIC MIXING VALVE TO TEMPER WATER TO 85 DEGREES.
  - 12 DEMO EXISTING WATER HEATER AND ASSOCIATED PIPING. CAP UNUSED PIPING BELOW FLOOR, IN WALL, OR ABOVE CEILING AS APPLICABLE. DEMO'D WATER PIPING SHALL BE REMOVED BACK TO MAIN TO ELIMINATE 'DEAD LEGS'.

3 WASTE & VENT ISOMETRIC  
 P1.1



2 Floor Plan - Level 1 - WATER  
 3/16" = 1'-0"  
 P1.1



1 Floor Plan - Level 1 - WASTE & VENT  
 3/16" = 1'-0"  
 P1.1



studio four design inc.  
 architecture | interiors  
 414 clinch avenue | knoxville, tn 37902  
 865.523.5001 | studiofourdesign.com



**PROFICIENT**  
 ENGINEERING  
 4110 Sutherland Avenue  
 Knoxville, Tennessee 37919  
 865.409.5755  
 PROJECT # 223071

Description of the Project for/at:  
**Don Harrell D.D.S.**  
 6701 Baum Drive Unit 165  
 Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08/09/23

Revisions

No.	Description	Date

Job Number: 23106  
 FLOOR PLANS

**P1.1**



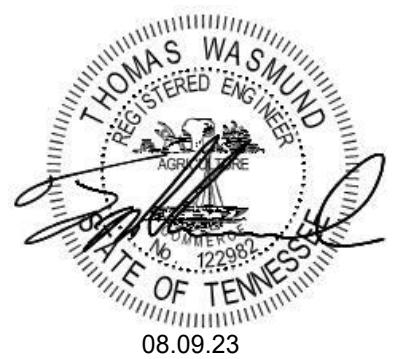
studio four design inc.  
 architecture | interiors  
 414 clinch avenue | knoxville, tn 37902  
 865.523.5001 | studiofourdesign.com



**PROFICIENT**  
 ENGINEERING  
 4110 Sutherland Avenue  
 Knoxville, Tennessee 37919  
 865.409.5755  
 PROJECT # 223071

Description of the Project for/at:  
**Don Harrell D.D.S.**

6701 Baum Drive Unit 165  
 Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08/09/23		
Revisions		
No.	Description	Date

Job Number: 23106

FLOOR PLAN - VACUUM & AIR

**P1.2**

**SPECIFICATIONS**

OXYGEN AND NITROUS OXIDE

THE COMPLETE OXYGEN PIPING SYSTEM INSTALLATION SHALL COMPLY WITH NFPA 99. PROVIDE TESTING AND CERTIFICATION IN COMPLIANCE WITH NFPA 99.

PIPING SHALL BE ASTM B819, TYPE L COPPER, SEAMLESS, DRAWN TEMPER THAT HAS BEEN MANUFACTURED CLEANED, PURGED, AND SEALED FOR MEDICAL GAS SERVICE.

GENERAL REQUIREMENTS FOR COPPER FITTINGS: MANUFACTURER CLEANED, PUGED, AND BAGGED FOR OXYGEN SERVICE.

WROUGHT-COPPER FITTINGS: ASME B16.22, SOLDER-JOIST PRESSURE TYPE OR MSS SP-73, WITH DIMENSIONS FOR BRAZED JOINTS.

COPPER UNIONS: ASME B16.22 OR MSS SP-123, WROUGHT COPPER OR CAST-COPPER ALLOY.

LABEL OXYGEN PIPING IN ACCORDANCE WITH NFPA 99.

INSTALLERS OF OXYGEN SYSTEMS SHALL MEET THE REQUIREMENTS OF ANSII/ASSE STANDARD 6010 - "PROFESSIONAL QUALIFICATIONS STANDARD FOR MEDICAL GAS AND VACUUM SYSTEM INSTALLERS."

VACUUM PIPING

THE COMPLETE VACUUM PIPING SYSTEM INSTALLATION SHALL COMPLY WITH NFPA 99. PROVIDE TESTING AND CERTIFICATION IN COMPLIANCE WITH NFPA 99.

VACUUM PIPING SHALL BE TYPE L, COPPER MEDICAL GAS TUBE, WROUGHT-COPPER FITTINGS, AND BRAZED JOINTS.

SLOPE ALL VACUUM PIPING AT 1/4" PER 10' (MINIMUM) BACK TO VACUUM PUMP.

LABEL VACUUM PIPING IN ACCORDANCE WITH NFPA 99.

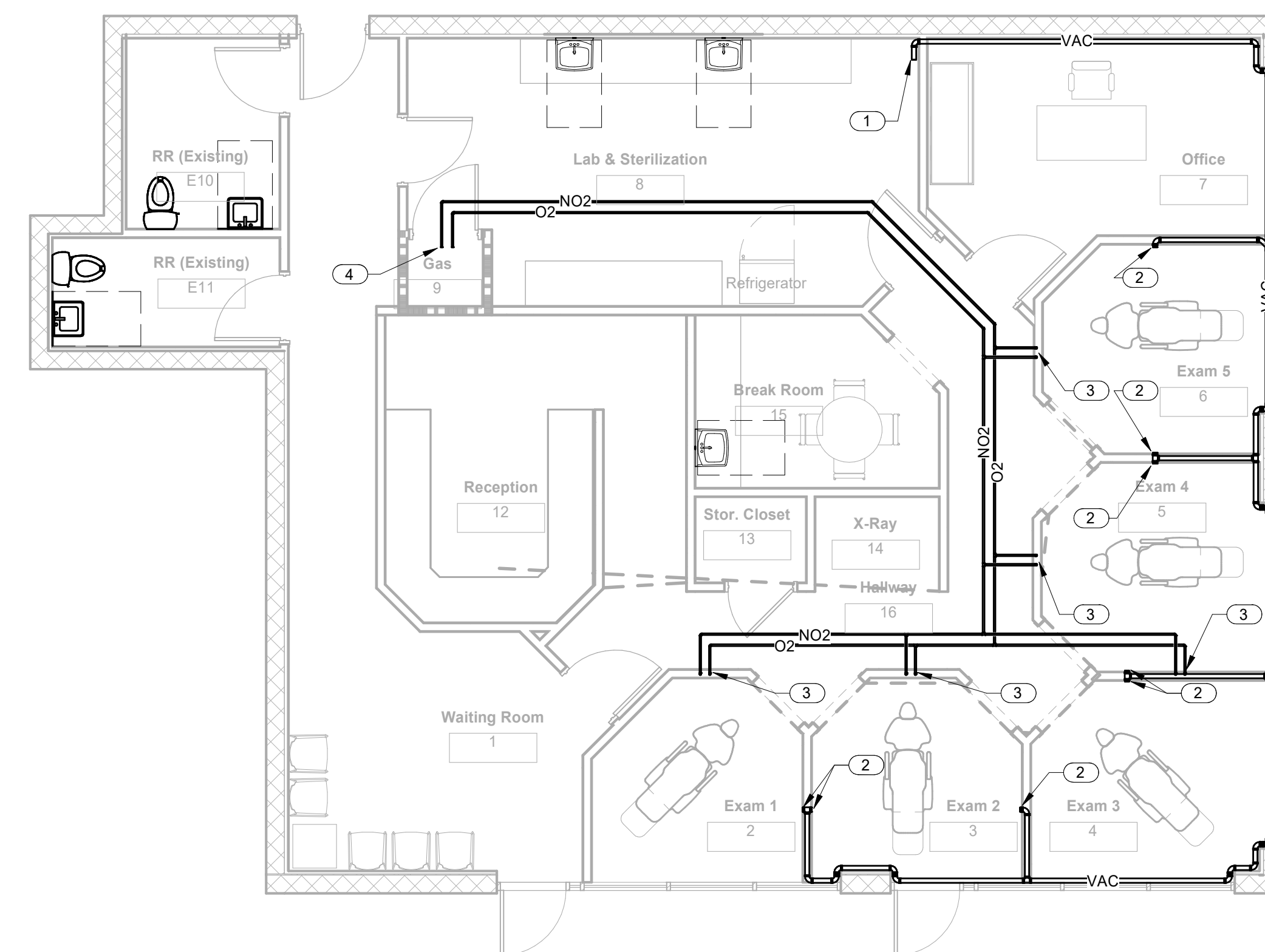
INSTALLERS OF MEDICAL VACUUM SYSTEMS SHALL MEET THE REQUIREMENTS OF ANSII/ASSE STANDARD 6010 - "PROFESSIONAL QUALIFICATIONS STANDARD FOR MEDICAL GAS AND VACUUM SYSTEM INSTALLERS."

**KEYNOTES**

- 1 VACUUM PIPING TO VACUUM PUMP. FIELD COORDINATE EXACT LOCATION AND PROVIDE ALL NECESSARY FITTINGS FOR CONNECTION PER MANUFACTURER'S REQUIREMENTS.
- 2 VACUUM PIPING TO DENTAL EQUIPMENT CONNECTION. FIELD COORDINATE EXACT LOCATION AND PROVIDE ALL NECESSARY FITTINGS FOR CONNECTION PER MANUFACTURER'S REQUIREMENTS.
- 3 O2 & NO2 DN IN WALL TO WALL OUTLETS @ 24" A.F.F.
- 4 O2 & NO2 TO STORAGE TANKS, FIELD VERIFY EXACT LOCATION.

**GENERAL NOTES**

- 1 CONTRACTOR SHALL FULLY COORDINATE THE INSTALLED EQUIPMENT WITH THESE DRAWINGS AND THE BRAND DESIGN (AS APPLICABLE) TO ENSURE THAT ALL EQUIPMENT IS PROVIDED WITH THE REQUIRED VACUUM CONNECTIONS.
- 2 VACUUM, O2 & NO2 PIPE SIZES TO BE CONFIRMED BY CERTIFIED PLUMBING CONTRACTOR PRIOR TO INSTALLATION.
- 3 VACUUM PIPING SHALL BE ROUTED ALONG EXTERIOR WALL IN BASEBOARD CHASE.



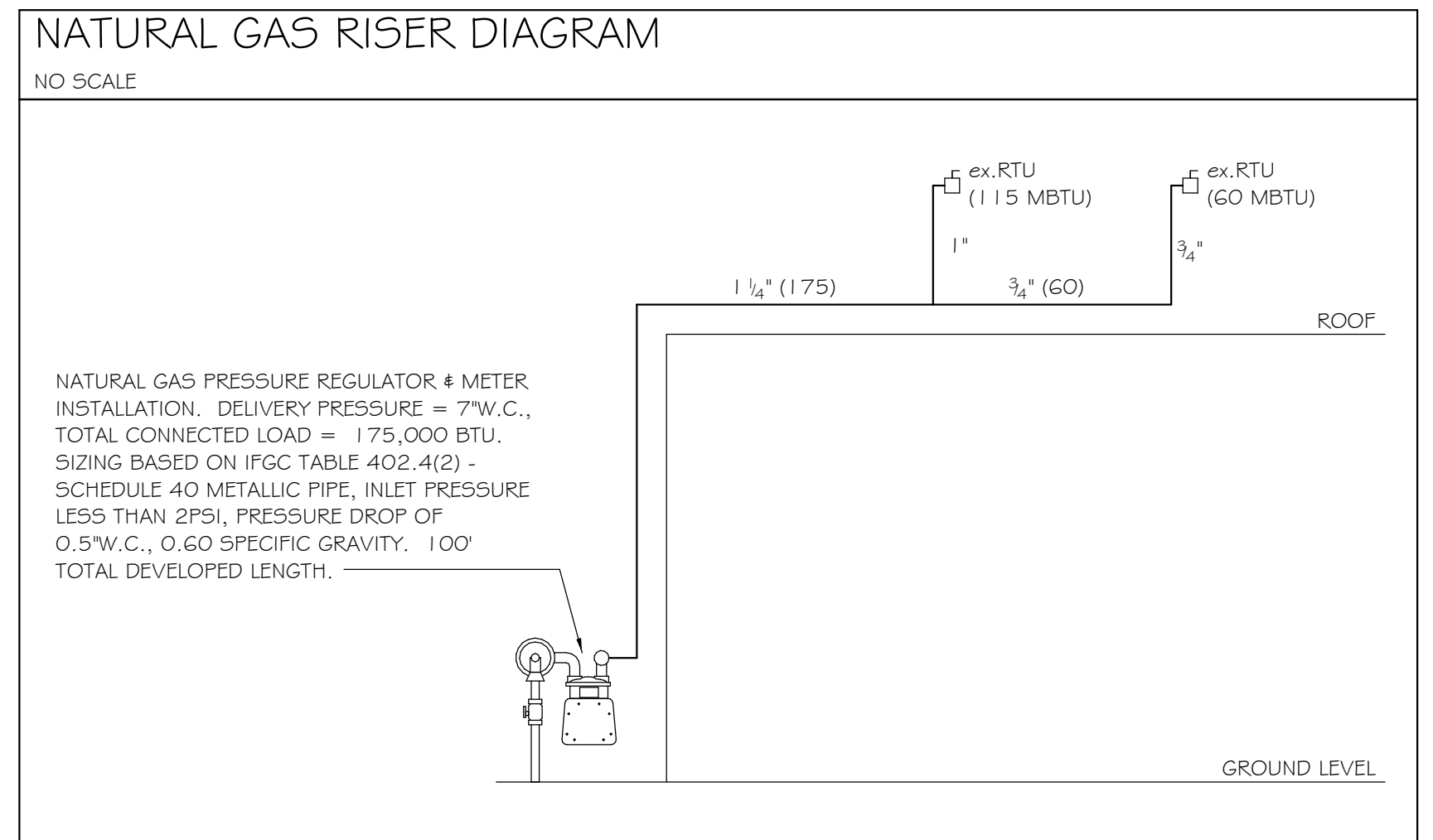
1 Floor Plan - Level 1 - VACUUM & AIR  
 P1.2 3/16" = 1'-0"

Date: 8/9/2023 4:06:35 PM Checked By: TW  
 Drawn By: CK  
 File: C:\Users\lring\Documents\223071 Don Harrell Dental Office Knoxville TN - MEP-02.dwg\FB\B\B\N.rvt

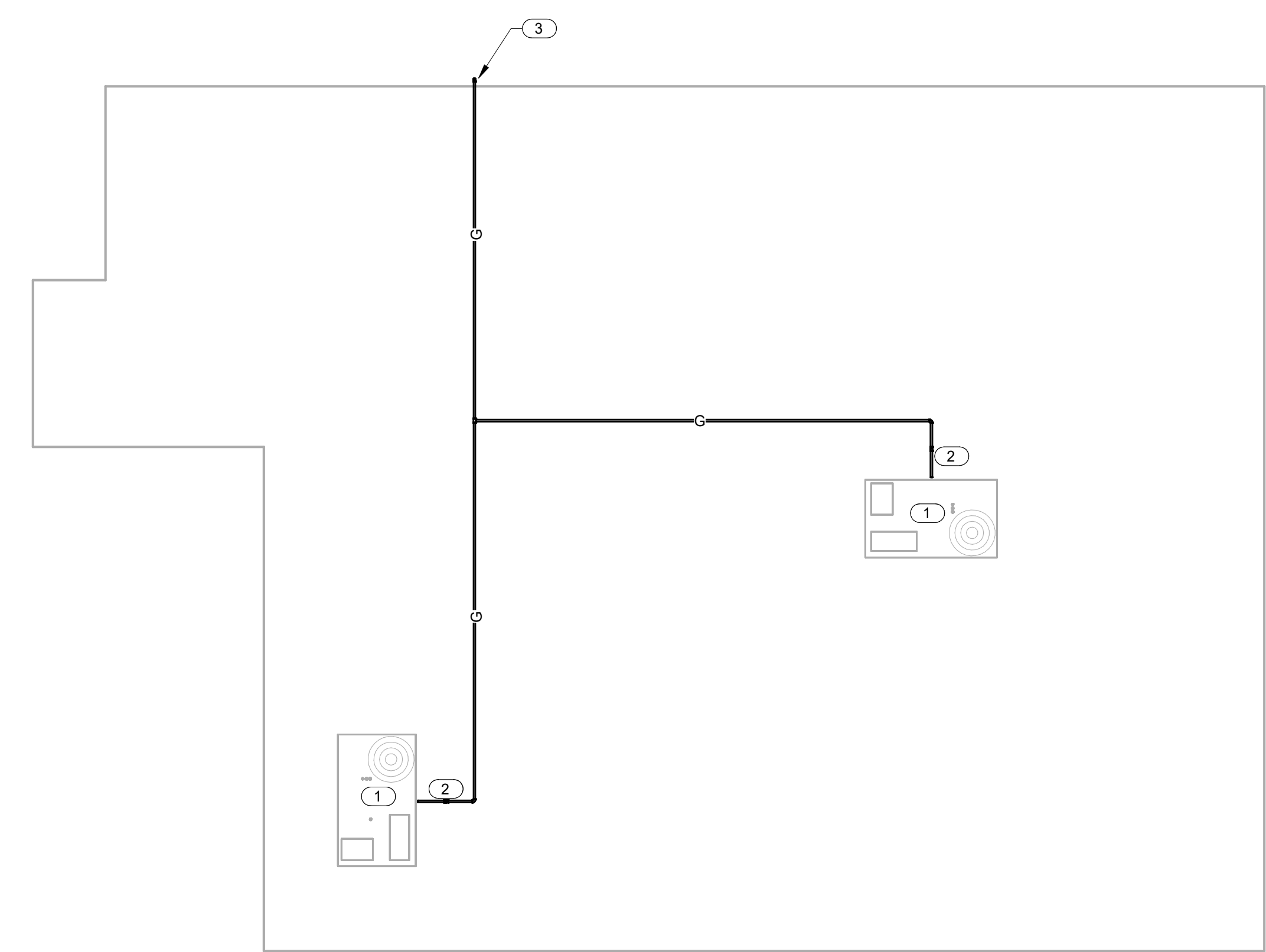
© 2023 studio four design, inc.  
 This drawing, its design detail and invention is the property of Studio Four Design, inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.

Date: 8/9/2023 4:06:35 PM  
 Drawn By: CK  
 Checked By: TW  
 File: C:\Users\lthng\Documents\223071 Don Harrell Dental Office Knoxville TN - MEP\02\_lthng\FB\B\N.rvt

© 2023 studio four design, inc.  
 This drawing, its design detail and invention is the property of Studio Four Design, inc. and shall not be reproduced or used for any other project in whole or in part without written consent. This drawing is an instrument of service only and shall be returned to the Architect upon request.



- ### KEYNOTES
- EXISTING ROOFTOP UNIT TO REMAIN
  - NATURAL GAS CONNECTION TO ROOFTOP UNIT W/SHUTOFF VALVE, DIRT LEG & UNION (SEE DETAIL)
  - NATURAL GAS ON ROOF & DN ON EXTERIOR WALL TO NATURAL GAS METER INSTALLATION (FIELD VERIFY EXACT LOCATION. COORDINATE INSTALLATION OF NEW METER ASSEMBLY WITH NATURAL GAS PROVIDER, IF NECESSARY). SEE RISER DIAGRAM FOR PIPE SIZING AND DESIGN CRITERIA.



studio four design inc.  
 architecture | interiors  
 414 clinch avenue | knoxville, tn 37902  
 865.523.5001 | studiofourdesign.com



**PROFICIENT**  
 ENGINEERING  
 4110 Sutherland Avenue  
 Knoxville, Tennessee 37919  
 865.409.5755  
 PROJECT # 223071

Description of the Project for/at:  
**Don Harrell D.D.S.**  
 6701 Baum Drive Unit 165  
 Knoxville, TN 37919



Project Phase: Construction Documents

Issue Date: 08/09/23

No.	Description	Date

Job Number: 23106

ROOF PLAN

**P1.3**

COMPANY, INC.

PITNEY BOWES

MMP

AUTOMATION





EDF ENERGY CORPORATION

UNIVERSAL HOSPITAL SERVICES, INC.

# POSTEC

165

