Godfrey Orthodontics



????
???, Utah 84321

IRONWOOD
Cameron Wilson — Construction
801-971-5758
cameron@ironwc.com

epic ENGINEERING
655 South 4th East, Suite 400
Pocatello, ID 83263
(208)852-3742

MANSFIELD ARCHITECTURAL SERVICES
445 East 275 North
Hyde Park, Utah 84318
(435)512-6249
steven.mansfield@usu.edu

civilsolutionsgroup inc.
CACHE VALLEY | P: 435.213.3762
SALT LAKE | P: 801.216.3192
UTAH VALLEY | P: 801.874.1432
info@civilsolutionsgroup.net
www.civilsolutionsgroup.net

BE
Beazer Engineering Inc.
525 East 3700 South
Logan, Utah 84321
435-753-1250
david@beazer-engineering.com

315 11th Ave. S., Suite 100
Nampa, ID 83651
(208)475-0040
?

Abbreviations

ABBR.	DESCRIPTION	ABBR.	DESCRIPTION
ACC STA	ACCESSIBLE STATION	MECH	MECHANICAL
AC	ACOUSTIC, ACOUSTICAL	MTL	METAL
ADJ	ADJUSTABLE	MIN	MINIMUM
ALT	ALTERNATE	MISC	MISCELLANEOUS
ALUM	ALUMINUM	MT	MOUNT
AB	ANCHOR BOLT	(N)	NEW
ANG	ANGLE	NIC	NOT IN CONTRACT
ASPH	ASPHALT	NTS	NOT TO SCALE
BSMT	BASEMENT	O/C	ON CENTER
BRG	BEARING	OPNG	OPENING
BM	BENCH MARK	OPP	OPPOSITE
BLKG	BLOCKING	OD	OUTSIDE DIAMETER
BD	BOARD	OH	OVERHEAD
B.O.	BOTTOM OF	OFIC	OWNER FURNISHED/ CONTRACTOR INSTALLED
BLDG	BUILDING	OFOI	OWNER FURNISHED/ OWNER INSTALLED
B.U.R.	BUILT UP ROOF	PART'N	PARTITION
CLG	CEILING	P-LAM	PLASTIC LAMINATE
CL	CENTER LINE	PL	PLATE
CT	CERAMIC TILE	PLY	PLYWOOD
CB	CHALK BOARD	PREFAB	PREFABRICATED
C	CHANNEL	PROJ	PROJECTION
CO	CLEAN OUT	QT	QUARRY TILE
COL	COLUMN	RAD	RADIUS
CONC	CONCRETE	REF	REFRIGERATOR
CONN	CONNECTION	REINF	REINFORCED
CONT	CONTINUOUS	REV	REVISION
CONTR	CONTRACTOR	RD	ROUND
DIM	DIMENSION	SCHED	SCHEDULE
DWG	DRAWING	SIM	SIMILAR
EA	EACH	SHT	SHEET
ELECT	ELECTRICAL	SPEC	SPECIFICATION
EWC	ELECTRIC WATER COOLER	SQ	SQUARE
ELEV	ELEVATION	SS	STAINLESS STEEL
EQ	EQUAL	STD	STANDARD
EQUIP	EQUIPMENT	STL	STEEL
EXIST	EXISTING	STOR	STORAGE
(E)	EXISTING	STRUCT	STRUCTURAL
EXP	EXPANSION	SUSP	SUSPENDED, SUSPENSION
EXT	EXTERIOR	SYS	SYSTEM
FIN	FINISH	TB	TACKBOARD
FEC	FIRE EXTINGUISHER CABINET	TEL	TELEPHONE
FLR	FLOOR	TV	TELEVISION
FD	FLOOR DRAIN	TEMP	TEMPORARY
GALV	GALVANIZED	TS	TUBE STEEL
GI	GALVANIZED IRON	THRES	THRESHOLD
GA	GAUGE	TOIL	TOILET
GYP BD	GYPSUM BOARD	T.O.	TOP OF
HDWD	HARD WOOD	T & B	TOP AND BOTTOM
HT	HEIGHT	TYP	TYPICAL
HM	HOLLOW METAL	VERT	VERTICAL
HORIZ	HORIZONTAL	U.N.O.	UNLESS NOTED OTHERWISE
ID	INSIDE DIAMETER	WC	WATER CLOSET
INSUL	INSULATION	WM	WATER METER
INT	INTERIOR	WWF	WELDED WIRE FABRIC
JT	JOINT	W	WIDE FLANGE
MFR	MANUFACTURER	WDO	WINDOW
MB	MARKER BOARD	W/	WITH
MAX	MAXIMUM	W/O	WITHOUT
		WD	WOOD

Material Legend

SYMBOL	DESCRIPTION
	EARTH
	COMPACTED GRANULAR FILL
	FINISHED WOOD
	EXISTING STRUCTURE TO REMAIN
	GYPSUM BOARD
	CONCRETE
	PLYWOOD/OSB
	SHINGLES
	WOOD STUD WALL
	RIDGED INSULATION
	BATT INSULATION
	BRICK/MASONRY
	CONCRETE MASONRY UNIT (CMU)
	PARTICLE BOARD
	CONTINUOUS WOOD
	STEEL

Symbol Legend

SYMBOL	DESCRIPTION
A1 / A201	BUILDING SECTION
A1 / A201	SECTION CUT
A1 / A201	DETAIL BUBBLE
A1/A201	INTERIOR ELEVATIONS
A1 A201	EXTERIOR ELEVATIONS
1	REVISIONS
SECOND FLOOR 110' - 0"	ELEVATION
201	DOOR NUMBER
10	WINDOW TYPES
1	WALL TYPE
ROOM NAME 201	ROOM TAGS
12 / 6	SLOPE
1	GRID BUBBLE
1 NOTES	KEY NOTES

Sheet Index

Index of Drawings - Architectural	
Sheet Number	Sheet Name
G100	Title Sheet
G101	Site Information
G102	Area Plans
G103	Travel Dist, Exit Plans & Fire Exting. Locations
A200	Main Floor Plan
A201	2nd Floor Plan
A202	Footing & Foundation Plan
A203	Roof Plan
A204	Main Floor Reflected Ceiling Plan
A205	Second Floor Reflected Ceiling Plan
A206	Enlarged Plans & Interior Elevations
A207	Enlarged Stair Plan & Section
A300	Elevations
A301	Elevations
A400	Building Sections
A401	Building Sections
A501	Wall Sections
A502	Wall Sections
A509	Door & Window Schedules
A900	3d Views
A901	Renderings
A902	Renderings

Index of Drawings Landscape	
L101	Landscape Site Plan
L201	Irrigation Plan
L301	Details
L302	Details
L303	Details

Index of Drawings Civil	
C001	Civil Cover Sheet
C002	Civil Legend
C201	Site, Dimensions, and Utility Plan
C301	Grading Plan
C302	Stormwater & Erosion Plan
C303	Stormwater Calculations
C304	Stormwater Calculations
C501	Details
C502	Details

Index of Drawings Structural	
S0.0	Structural Cover Sheet
S0.1	Special Inspections
S1.0	Foundation Plan
S2.0	Shear/Header Plan
S3.0	Upper Level Framing Plan
S3.1	Upper Shear/Header Plan
S4.0	Roof Framing Plan
SD1.0	Footing& Foundatio Details
SD2.0	Framing Details

Index of Drawings Electrical	
E1.1	First Floor Lighting Plan
E1.2	Second Floor Lighting Plan
E2.1	First Floor Power Plan
E2.2	Second Floor Power Plan
E2.3	Roof & Electrical Plan
E3.1	First Floor Detail Equipment Plan

Index of Drawings Mechanical	
M0.1	Mechanical General Notes
M0.2	HVAC Zoning
M0.3	Heat Loss Calculations
M0.4	Heat Loss Calculations
M1.1	1st Level Mechanical Plan
M1.2	2nd Level Mechanical Plan
M1.3	Roof Mechanical Plan
M5.1	Mechanical Details
M5.2	Mechanical Schedules
P0.1	Plumbing General Notes
P1.1	First Level Plumbing Plan
P1.2	Second Level Plumbing Plan
P1.3	Roof Plumbing Plan
P2.1	First Level Sanitary Plan
P2.2	Second Level Sanitary Plan
P5.2	Plumbing Details & Schedules

Index of Drawings Dental Equipment Drawings	
SCV	Dental Equipment Cover Sheet
SA.0	1st Floor Plan
SA.1	2nd Floor Plan
SA.1.1	Reinforcement Plan
SP.1	Dental Plumbing Plan
SE.1	Dental Electrical Plan
SED.1	Dental Equipment All Details
SED.2	Dental Equipment All Details

1/25/2025 11:01:16 AM

MANSFIELD ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD — ARCHITECT
435-563-2230 | FAX 435.563.1464 — mansfield@cc.usu.edu
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME: Doctor Tanner Godfrey
PROJECT ADDRESS: ??????

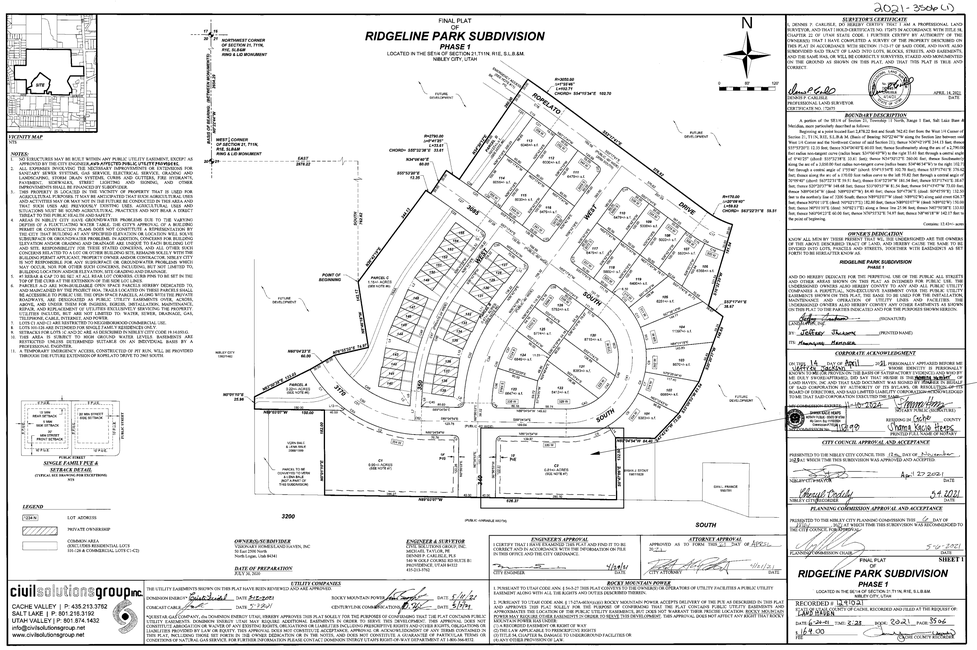
MARK:	DATE:	DESCRIPTION:
1	Date 1	Revision 1

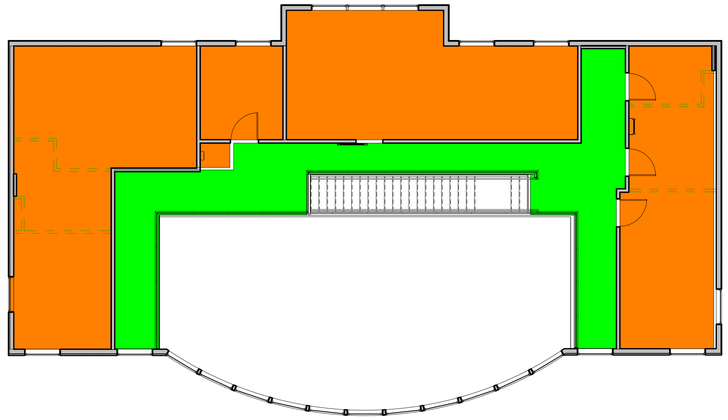
PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED: Jan. 25, 2025

STATE OF UTAH — STEVEN R. MANSFIELD — Steven R Mansfield — 134922 — 1/25/2025 — LICENSED ARCHITECT

Title Sheet

G100


2021-35 Pg 45
FINAL PLAT
OF
RIDGELINE PARK SUBDIVISION
PHASE 1
LOCATED IN THE SE¼ OF SECTION 21 T11N R1E, S.L.B.&M.
NIBLEY CITY, UTAH
N
0
60'
120'
VICINITY MAP
NOT TO SCALE
NOTES:
1. NO STRUCTURES MAY BE BUILT WITHIN ANY PUBLIC UTILITY EASEMENT, EXCEPT AS APPROVED BY ALL UTILITIES USING THE EASEMENT.
2. ALL EASEMENTS, INCLUDING THE NECESSARY IMPROVEMENTS OR APPURTENANCES FOR SANITARY SEWER SYSTEMS, GAS SERVICE, ELECTRICAL SERVICE, GRADING AND DRAINAGE, SHALL BE INSTALLED BY THE DEVELOPER AT THE TIME OF SUBDIVISION. EASEMENTS, SIDEWALKS, STREET LIGHTING AND CENTRAL MAIL BOXES IMPROVEMENTS SHALL BE FINANCED BY SUBDIVIDER.
3. AGRICULTURAL USES AND ACTIVITIES ON THE PROPERTY THAT IS USED FOR AGRICULTURAL PURPOSES TO MAY BE ANTICIPATED THAT SUCH AGRICULTURAL USES AND ACTIVITIES MAY OR MAY NOT IN THE FUTURE BE CONDUCTED IN THIS AREA AND THAT SUCH AGRICULTURAL USES AND ACTIVITIES SHALL NOT BE CONSIDERED A NUISANCE UNLESS SUCH AGRICULTURAL PRACTICES AND ACTIVITIES SHALL BE DIRECTLY TIRELAT TO THIS PUBLIC HEALTH AND SAFETY.
4. AREAS OF THE SUBDIVISION WITH DRAINAGE PROBLEMS DUE TO THE YARDING GRADE OF A FLAT LOT TEND TO WATER TABLE. THE CITY'S APPROVAL OF A BUILDING PERMIT OR CONSTRUCTION PLANS DOES NOT CONSTITUTE A REPRESENTATION BY THE CITY THAT BUILDING AT THE PROPOSED LOCATION WILL NOT BE SUBJECT TO DAMAGE DUE TO GROUNDWATER PROBLEMS. IN ADDITION, CONSTRUCTION OF BUILDING ELEVATION AND/OR GRADING AND DRAINAGE ARE UNIQUE TO EACH BUILDING LOT AND SHALL BE ENGINEERED BY A LICENSED ENGINEER. THE CITY'S APPROVAL OF ANY SUCH DESIGN RELATIVE TO A LOT OR OTHER BUILDING SHALL REMAIN SOLELY WITH THE BUILDING PERMIT APPLICANT, PROPERTY OWNER AND/OR CONTRACTOR. NIBLEY CITY IS NOT RESPONSIBLE FOR ANY SUCH CONSTRUCTION, GRADING OR DRAINAGE WHICH RESULTS IN DAMAGE TO ANY BUILDING OR STRUCTURE DUE TO, BUT NOT LIMITED TO, BUILDING LOCATION AND/OR ELEVATION, SITE GRADING AND DRAINAGE.
5. 4" REBAR & CAP TO BE SET AT ALL REAR LOT CORNERS, CURB PINS TO BE SET IN TOP BACK OF CURB AT ALL SIDE LOT CORNERS AT FRONT OF LOTS.
6. PARCELS A-D ARE NON-BUILDABLE OPEN SPACE PARCELS HEREBY DEDICATED TO, AND MAINTAINED BY THE PROJECT HOA. TRACTS LOCATED IN THE PUBLIC ROAD RIGHT-OF-WAY ARE HEREBY DEDICATED AS PUBLIC UTILITY EASEMENTS OVER, ACROSS, ABOVE, AND UNDER THEM FOR INGRESS, EGRESS, INSTALLATION, MAINTENANCE, REPAIR AND REMOVAL OF UTILITY LINES AND SERVICE CONNECTIONS AND FOR SUCH UTILITIES INCLUDE, BUT ARE NOT LIMITED TO, WATER, SEWER, DRAINAGE, GAS, TELEPHONE, CABLE INTERNET, AND POWER.
7. LOTS 101-120 ARE INTENDED FOR SINGLE FAMILY RESIDENCES (SFR).
8. LOTS 101-120 ARE INTENDED FOR SINGLE FAMILY RESIDENCES ONLY.
9. SETBACKS FOR LOTS IC ARE AS DESCRIBED IN NIBLEY CITY CODE 19.14.020.G2. ALL OTHER LOTS ARE AS DESCRIBED IN NIBLEY CITY CODE 19.14.020.G1.
10. ACCESS TO LOTS 101-120 ARE RESTRICTED TO 3200 SOUTH. ALL OTHER ACCESSES ARE RESTRICTED UNLESS OTHERWISE STATED ON AN INDIVIDUAL BASIS BY A PROFESSIONAL ENGINEER.
11. A TEMPORARY EMERGENCY ACCESS CONSTRUCTED OF PC RUN, WILL BE PROVIDED THROUGH THE FUTURE EXTENSION OF ROPELATO DRIVE TO 3360 SOUTH.
SINGLE FAMILY PC 4
SETBACK DETAIL
(TYPICAL SETBACKS FOR EXISTING)
LEGEND
LOT# N LOT ADDRESS
PRIVATE OWNERSHIP
COMMON AREA
101-120 A RESIDENTIAL LOTS
101-120 A COMMERCIAL LOTS (1-C2)
EAST
2676.22'
NORTHWEST CORNER OF SECTION 21, T11N, R1E, SLB&M. FOUND 4 INCH BRASS CAP MONUMENT
WEST QUARTER CORNER OF SECTION 21, T11N, R1E, SLB&M. FOUND 4 INCH BRASS CAP MONUMENT
BASIS OF BEARING - BETWEEN MONUMENTS
N0°47'56"W
2645.39'
POINT OF BEGINNING
PARCEL C
5.13+/- ACRES
(223,437'+/- SF)
PARCEL A
0.83+/- ACRES
(36,155'+/- SF)
PARCEL B
0.83+/- ACRES
(36,155'+/- SF)
PARCEL D
0.83+/- ACRES
(36,155'+/- SF)
PUBLIC ROAD DEDICATION
0.00+/- ACRES
(0'+/- SF)
PARCEL E TO BE DEDICATED TO NIBLEY CITY WITH 2ND ADDITION
PARCEL F TO BE DEDICATED TO NIBLEY CITY WITH 2ND ADDITION
FUTURE DEVELOPMENT
FUTURE DEVELOPER
FUTURE DEVELOPER
FUTURE DEVELOPER

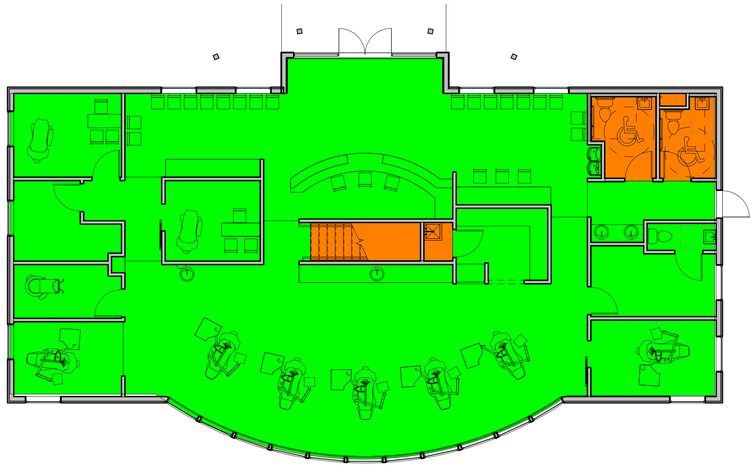


Area Legend

Office = 499 Sq. Ft.

Core = 1381 Sq. Ft.

2 **2nd Floor Area Plan**
G102 1/8" = 1'-0"



Area Legend

Office = 2757 Sq. Ft.

Core = 198 Sq. Ft.

1 **Main Floor Area Plan**
G102 1/8" = 1'-0"

CODE ANALYSIS

PROJECT NAME: Godfrey Orthodontics
ADDRESS: ???
???

PROPOSED USE: MEDICAL BUILDING

OWNER/CONTACT PERSON: Dr. Tanner Godfrey
????

JURISDICTION: Cache County, UTAH

CODE:

2021 INTERNATIONAL BUILDING CODE
2021 INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL ENERGY CODE COUNCIL
A117.1 AMERICANS NATIONAL STANDARDS INSTITUTE
PROJECT TO COMPLY W/ ICC A117.1-2017
2021 INTERNATIONAL MECHANICAL CODE
2020 NATIONAL ELECTRICAL CODE
2021 NATIONAL FUEL GAS CODE
AMERICANS W/ DISABILITIES ACT ACCESSIBILITY GUIDELINES
A17.1 AMERICAN SOCIETY OF MECHANICAL ENGINEERS

GENERAL:

OCCUPANCY	B - Business
REQUIRED FIRE SEPARATION	1 hour - TABLE 705.5

FIRE RESISTIVE REQUIREMENTS (TABLE 601):

CONSTRUCTION TYPE	VB	
STRUCTURAL FRAME	0 HR	RATING
BEARING WALLS	0 HR	RATING
EXTERIOR	0 HR	RATING
INTERIOR	0 HR	RATING
NON BEARING WALLS	0 HR	RATING
FLOOR CONSTRUCTION	0 HR	RATING
ROOF CONSTRUCTION	0 HR	RATING

BUILDING HEIGHT (TABLE 504.3):

ALLOWABLE HEIGHT	40 FEET
ACTUAL HEIGHT	35 FEET

NUMBER OF STORIES (TABLE 504.4):

ALLOWABLE STORIES	2
ACTUAL STORIES	2

ALLOWABLE AREA (506.2):

ALLOWABLE AREA	27,000 S.F.
ACTUAL AREA (MAIN FLOOR)	2,955 S.F.
ACTUAL AREA (UPPER FLOOR)	1,810 S.F
ACTUAL TOTAL AREA	4,765 S.F

PARKING SPACES PROVIDED	?
ACCESSIBLE PARKING SPACES PROVIDED	?

FIRE PROTECTION SYSTEMS:

FIRE EXTINGUISHING SYSTEM:	N
STANDPIPE SYSTEM:	N
FIRE DETECTION SYSTEM REQUIRED	N
SMOKE AND HEAT REMOVAL	N

OCCUPANT LOAD CALCULATION (TABLE 1004.1.1):

OCCUPANT LOAD AS PER IBC TABLE 1004.5 (150 GROSS) TOTAL = (2,757 + 499) = 3,256/150 = 22 PEOPLE

EGRESS WIDTH (TABLE 1005.1):

CORRIDORS	OCCUPANT < OR = 30	36" MIN
	OCCUPANT > OR = 30	44" MIN
CORRIDOR DOORS	.2 INCHES PER OCCUPANT	= 22x.2" =4.4" OF EXIT REQUIRED 108" OF EXIT PROVIDED

EXIT TRAVEL DISTANCE(TABLE 1017.2):

MAX. TRAVEL DISTANCE	WITH SPRINKLER SYSTEM
200 FEET	300 FEET

FOR MAX. TRAVEL DISTANCE REFER TO SHEET G101. NO TRAVEL DISTANCE EXCEEDS 100 FEET.
Table 1006.2.1 allows 30 or less occupants to maximun travel distance of 100 feet without a sprinkler system

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1):

	REQUIRED	PROVIDED (IN BUILDING)
BUILDING TOTAL		
TOTAL PEOPLE = 3,256 SQ. FT./150=22 PEOPLE (11 MEN/11 WOMEN)		
DRINKING FOUNTAINS: 1 PER 100	1	2
MALE: WATER CLOSETS REQUIRED: 1 PER 25	1	1.5
FEMALE:WATER CLOSETS REQUIRED: 1 PER 25	1	1.5
MALE: LAVATORIES REQUIRED: 1 PER 40	1	1.5
FEMALE: LAVATORIES REQUIRED: 1 PER 40	1	1.5
SERVICE SINKS:	1	1

3 **Code Analysis**
G102 1 1/2" = 1'-0"

MANSFIELD ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD, ARCHITECT
435-563-2339 | FAX 435.563.1464 | mansfield@ccnet.net
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics
OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS ??????

MARK:	DATE:	DESCRIPTION:

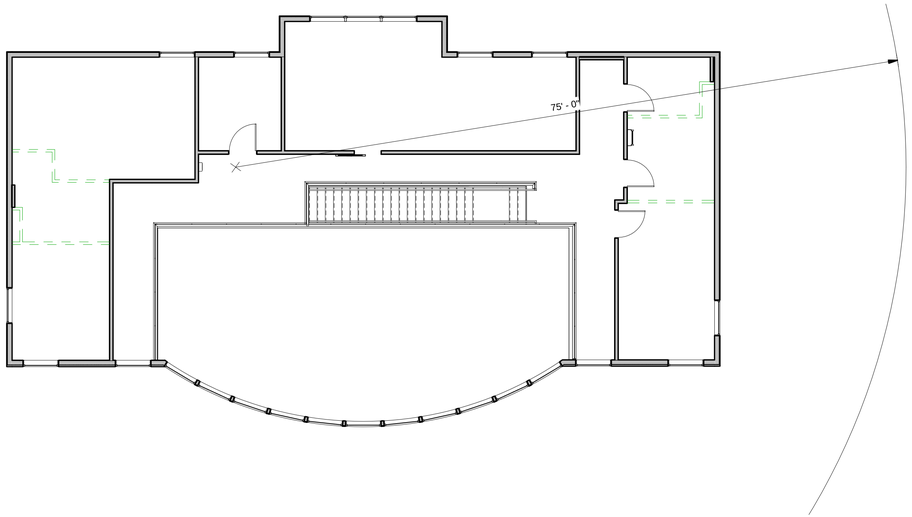
PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

STATE OF UTAH
STEVEN R. MANSFIELD
Steven R Mansfield
134922
1/25/2025
LICENSED ARCHITECT

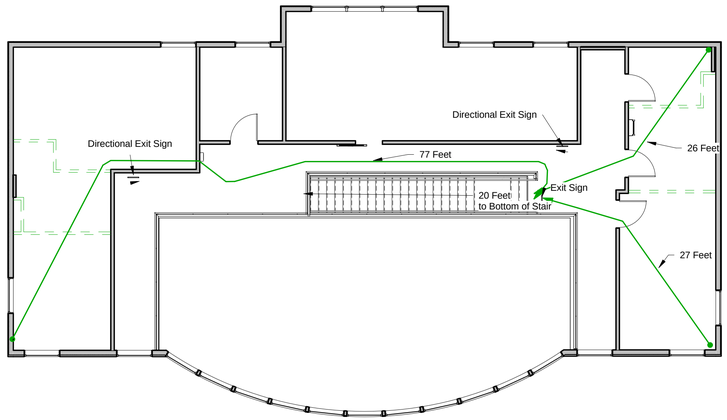
Area Plans

G102

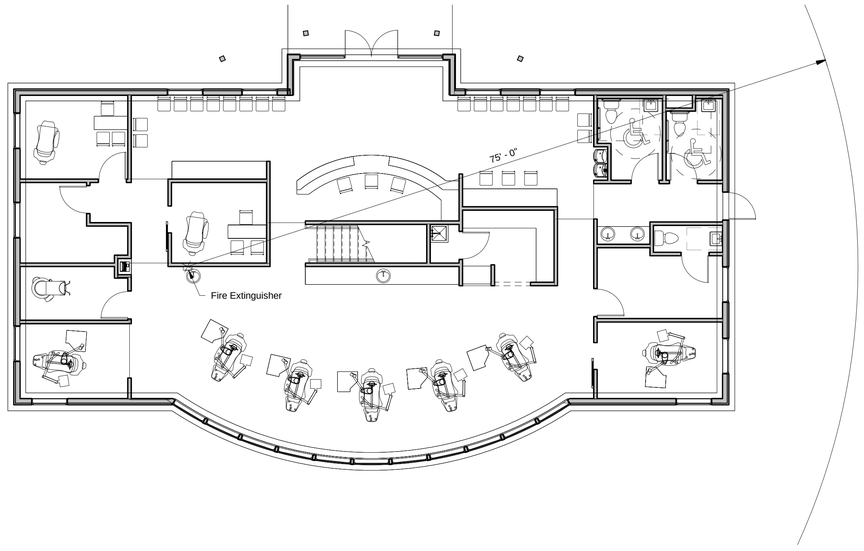
1/25/2025 11:01:26 AM



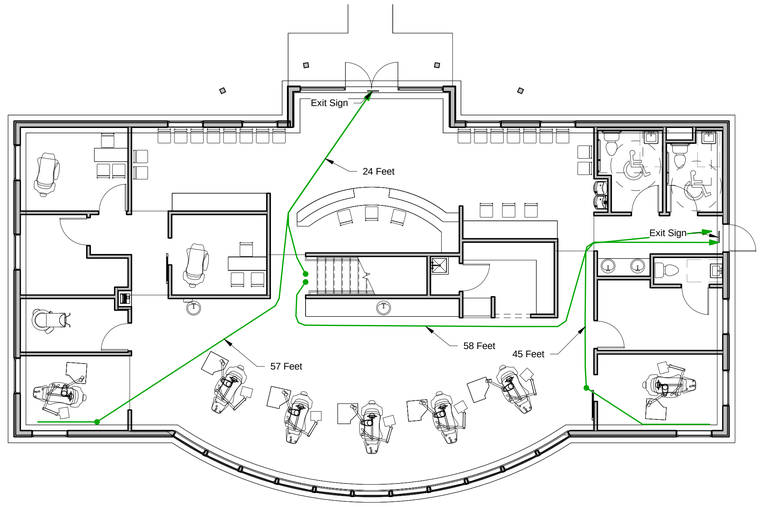
4 **2nd Floor Fire Extinguisher Plan**
G103 1/8" = 1'-0"



2 **2nd Floor Travel Distance & Exit Signage**
G103 1/8" = 1'-0"



3 **Main Floor Fire Extinguisher Plan**
G103 1/8" = 1'-0"



1 **Main Floor Travel Distance & Exit Signage**
G103 1/8" = 1'-0"

1/25/2025 11:01:29 AM

MASTERED ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD ARCHITECT
435-565-2339 | FAX 435-563-1454 mansfield@ccnet.usu.edu
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS ??????

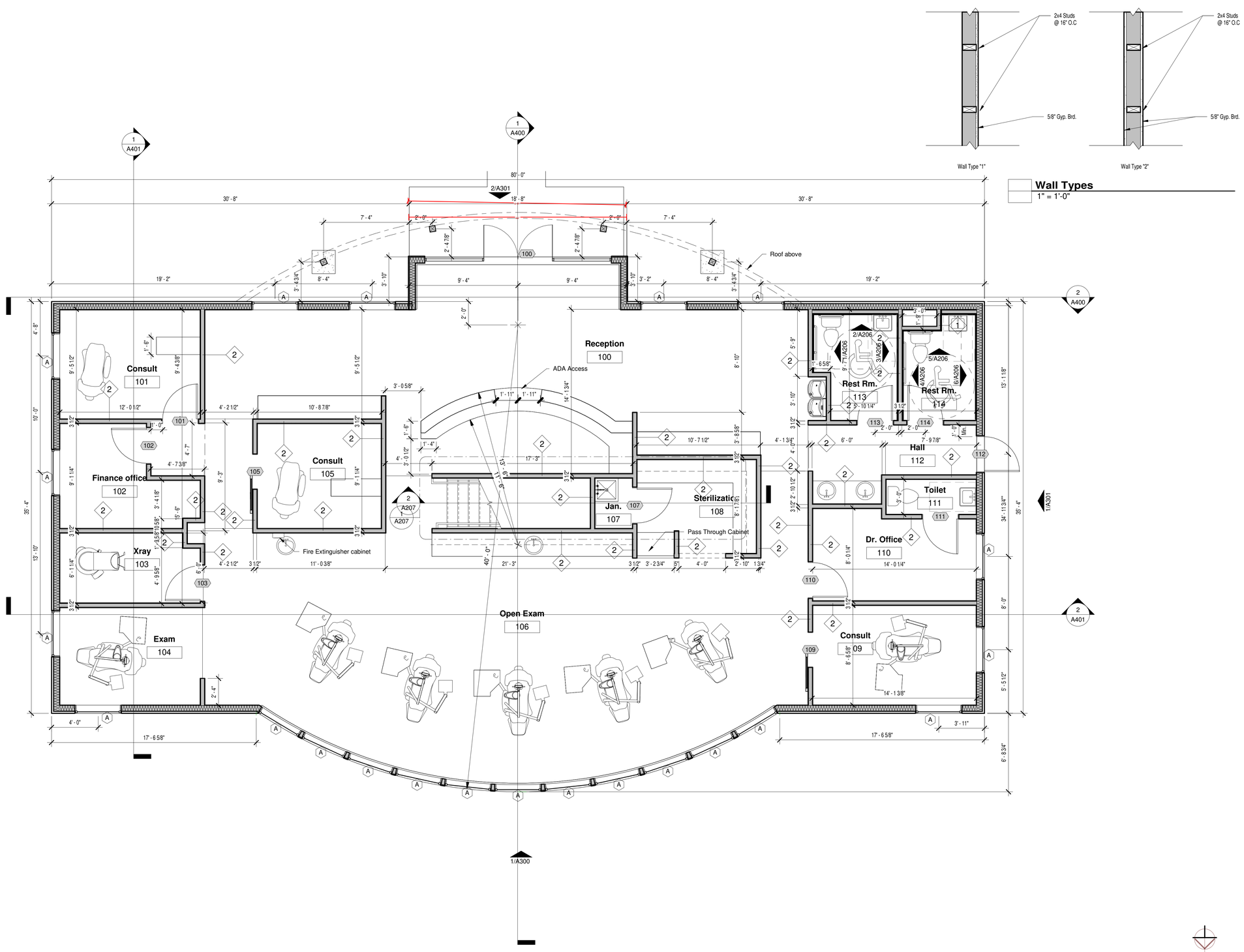
MARK:	DATE:	DESCRIPTION:

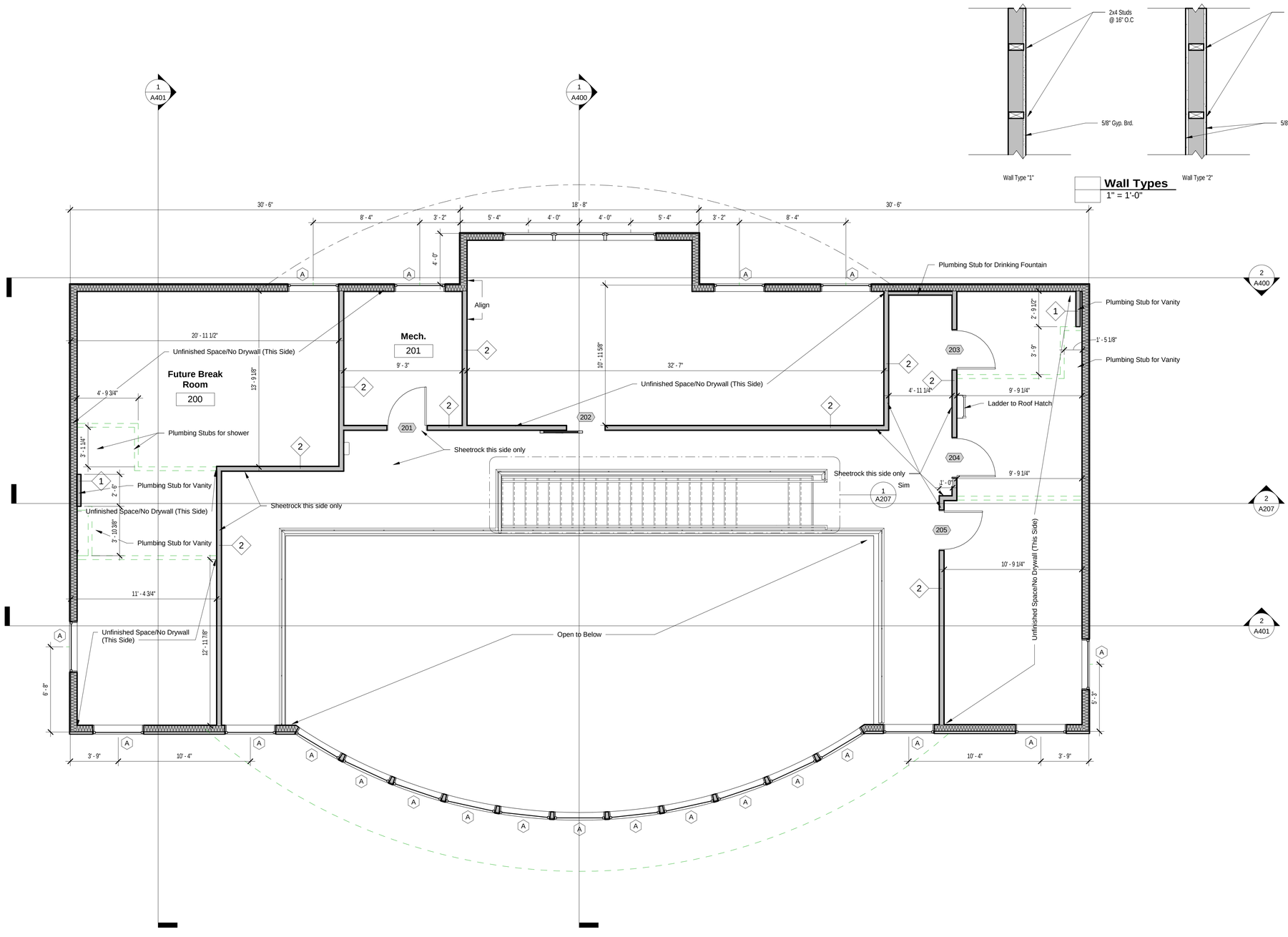
PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

STATE OF UTAH
STEVEN R. MANSFIELD
Steven R Mansfield
134922
1/25/2025
LICENSED ARCHITECT

Travel Dist, Exit Plans & Fire Exting. Locations

G103


1
A401
1
A400
2/A301
80' - 0"
30' - 8"
18' - 8"
30' - 8"
7' - 4"
2' - 0"
2' - 0"
7' - 4"
2 - 4 7/8"
2 - 4 7/8"
100
Roof above
19' - 2"
3' - 4 3/4"
8' - 4"
3' - 10"
9' - 4"
9' - 4"
3' - 10"
3' - 2"
8' - 4"
3' - 4 3/4"
19' - 2"
2' - 0"
2
A400
4' - 8"
9' - 5 1/2"
9' - 5 1/2"
8' - 10"
3' - 0"
1' - 6"
Consult
101
9' - 4 3/8"
2
2
12' - 0 1/2"
4' - 2 1/2"
10' - 8 7/8"
3' - 0 5/8"
1' - 11"
1' - 11"
14' - 3 3/4"
ADA Access
Reception
100
2
2/A206
3/A206
4/A206
5/A206
6/A206
7/A206
9' - 7"
1' - 6 5/8"
2
Rest Rm.
113
2' - 10 1/4"
Rest Rm.
114
1
3' - 0"
1' - 0"
5' - 9"
2
2
3' - 10"
3 1/2"
3 1/2"
3 1/2"
3 1/2"
101
1' - 0"
102
4' - 7"
4' - 7 3/8"
1' - 6"
1' - 4"
4' - 0 1/2"
2
2
10' - 7 1/2"
3' - 6 5/8"
4' - 1 3/4"
4' - 0"
2
6' - 0"
113
2' - 0"
114
2' - 0"
7' - 9 7/8"
Min.
1' - 0"
13' - 11 5/8"
Hall
112
2
112
2
2
2
Finance office
102
9' - 3"
105
Consult
105
9' - 1 1/4"
2
2
2



1 **2nd Floor**
A201 1/4" = 1'-0"

1/25/2025 10:57:59 AM

MARSFIELD ARCHITECTURAL SERVICES
STEVEN R. MARSFIELD ARCHITECT
435-563-2339 | FAX 435.563.1454 marsfield@ccnet.net
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS
?????

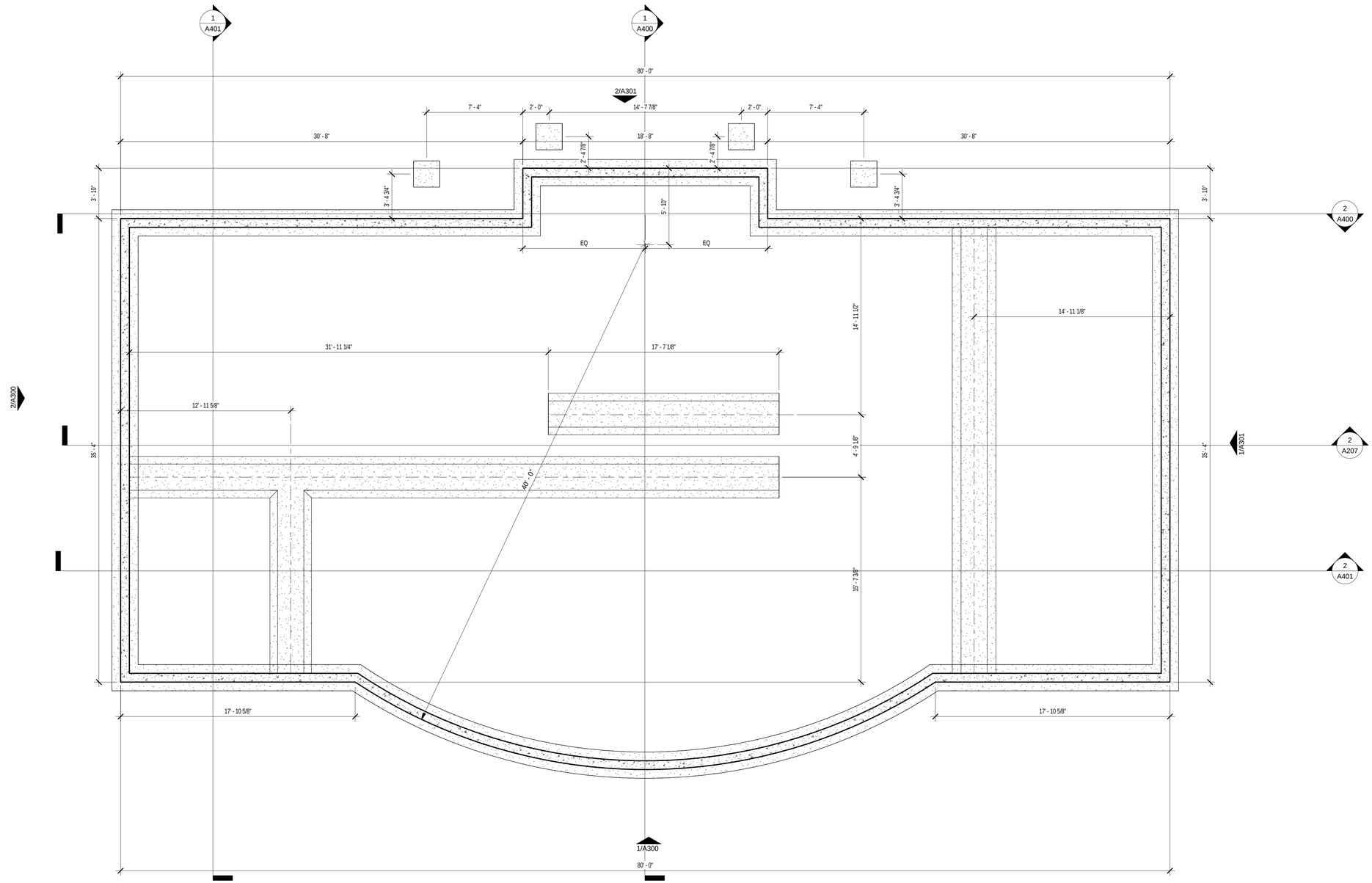
MARK:	DATE:	DESCRIPTION:

PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

STATE OF UTAH · STEVEN MARSFIELD · Steven R. Marsfield · 134922 · 1/25/2025 · LICENSED ARCHITECT

2nd Floor Plan

A201



1 Footing & Foundation Plan
A202 1/4" = 1'-0"

1/25/2025 10:58:05 AM

MANSFIELD ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD ARCHITECT
435-565-2339 - FAX 435.563.1454 mansfield@ccnet.net
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS ??????

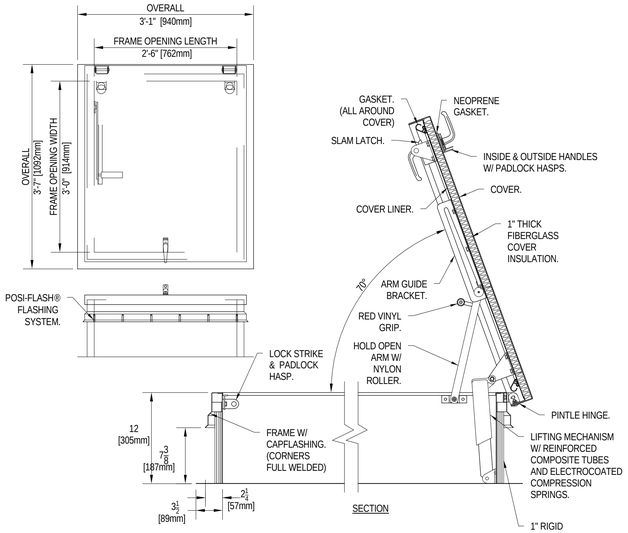
MARK:	DATE:	DESCRIPTION:

PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

STATE OF UTAH
STEVEN MANSFIELD
Steven R Mansfield
134922
1/25/2025
LICENSED ARCHITECT

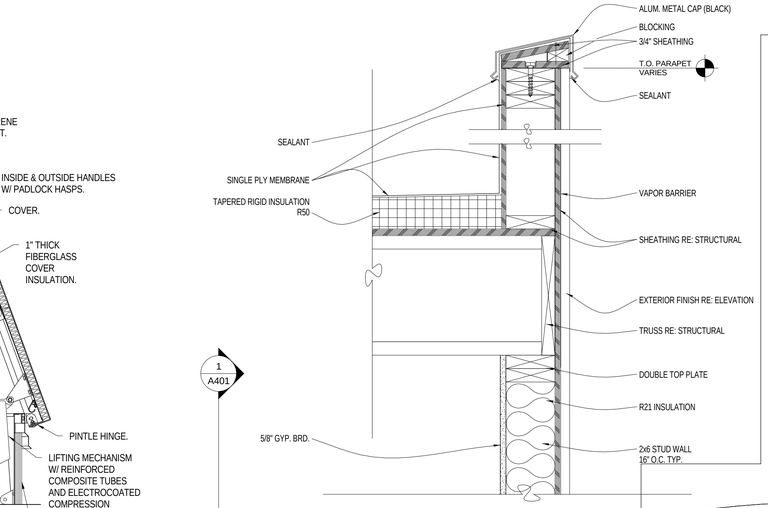
Footing & Foundation Plan

A202

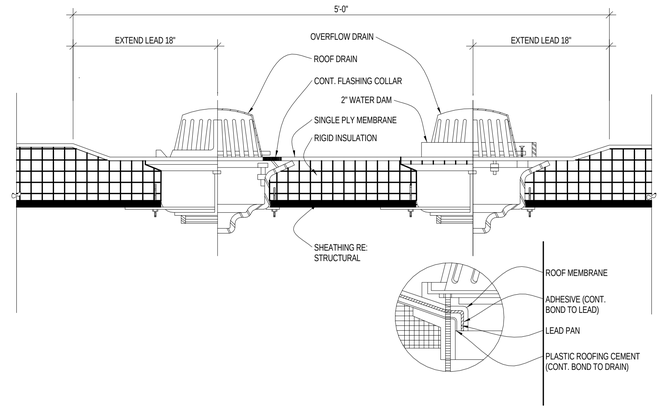


NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER 2561-035.

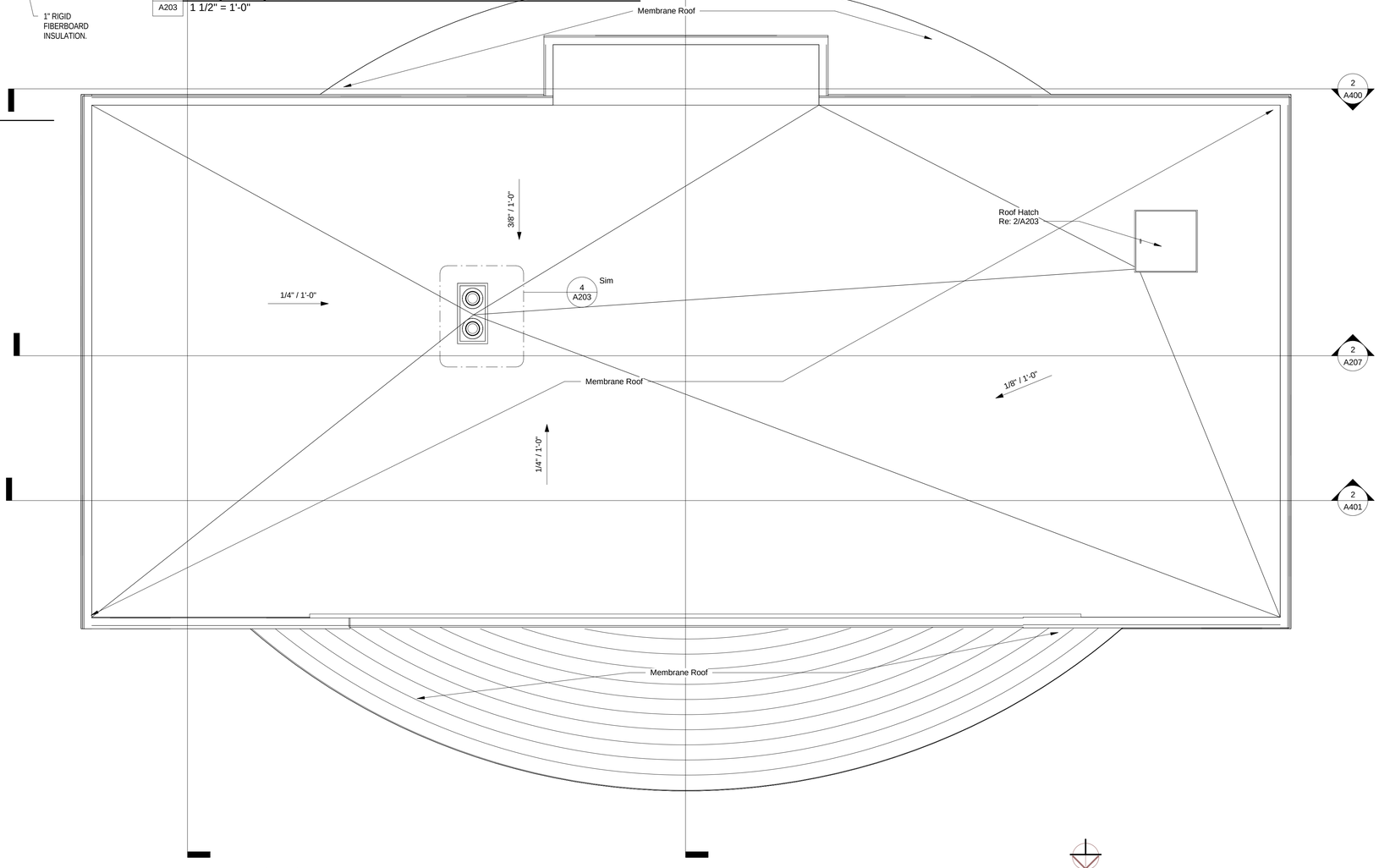
2 Roof Hatch Detail — A203 — 1/2" = 1'-0"



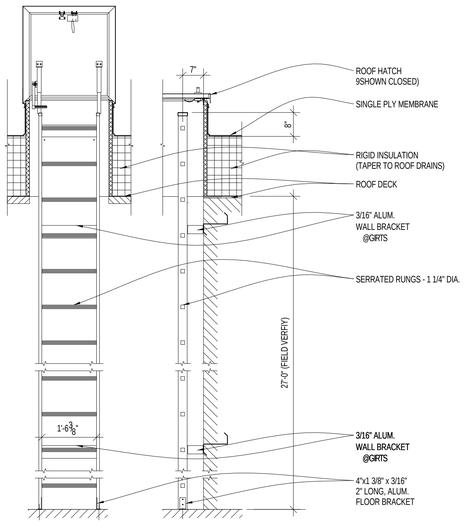
5 Parapet Cap Detail — A203 — 1 1/2" = 1'-0"



4 Roof Drain Detail — A203 — 1 1/2" = 1'-0"



1 Roof Plan — A203 — 1/4" = 1'-0"



3 Ladder Detail — A203 — 1/2" = 1'-0"

MANSFIELD ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD, ARCHITECT
435-563-2339 | FAX 435.563.1454 | mansfield@ccnet.usu.edu
40 WEST 3800 NORTH | HYDE PARK, UT 84318

Godfrey Orthodontics

OWNERS NAME: Doctor Tanner Godfrey
PROJECT ADDRESS: ??????

MARK:	DATE:	DESCRIPTION:

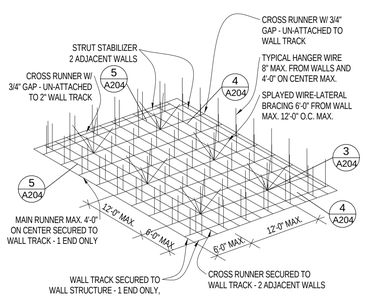
PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

STATE OF UTAH — STEVEN R. MANSFIELD — 134922 — 1/25/2025 — LICENSED ARCHITECT

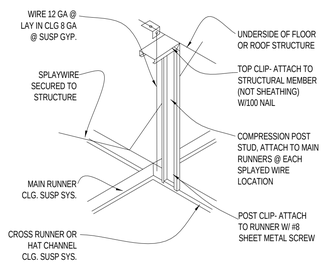
Roof Plan

A203

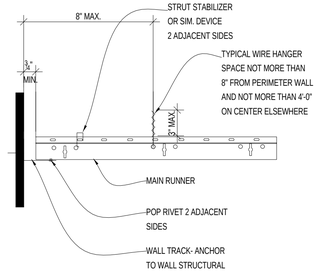
1/25/2025 10:58:11 AM



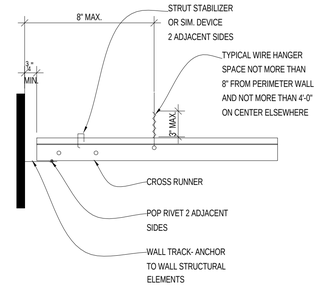
2 A204 ACT Ceiling Detail



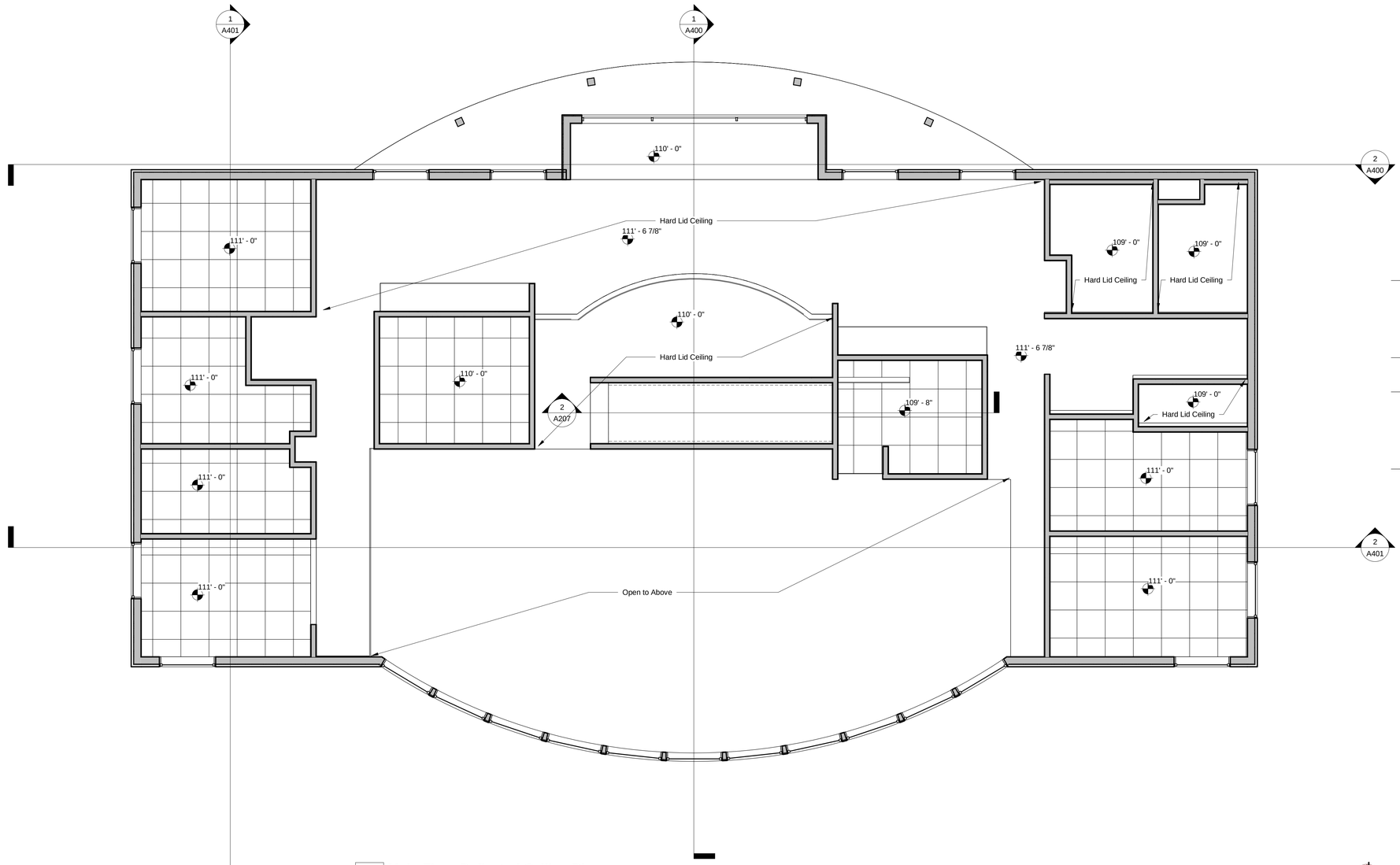
3 A204 Compression Detail



4 A204 Main Runner Detail



5 A204 Cross Runner Detail



1 A204 Main Floor Reflected Ceiling Plan
1/4" = 1'-0"

Legend

2'x2' ACT Ceiling
Refer to ACT installation details 2-5 on A204

5/8" Gyp. Board
Tightly attached to underside of Wood Trusses

1/25/2025 10:58:45 AM

MAS ARCHITECT
SPENCER R. MANSFIELD
435-563-2331 FAX 435-563-1464
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS ??????

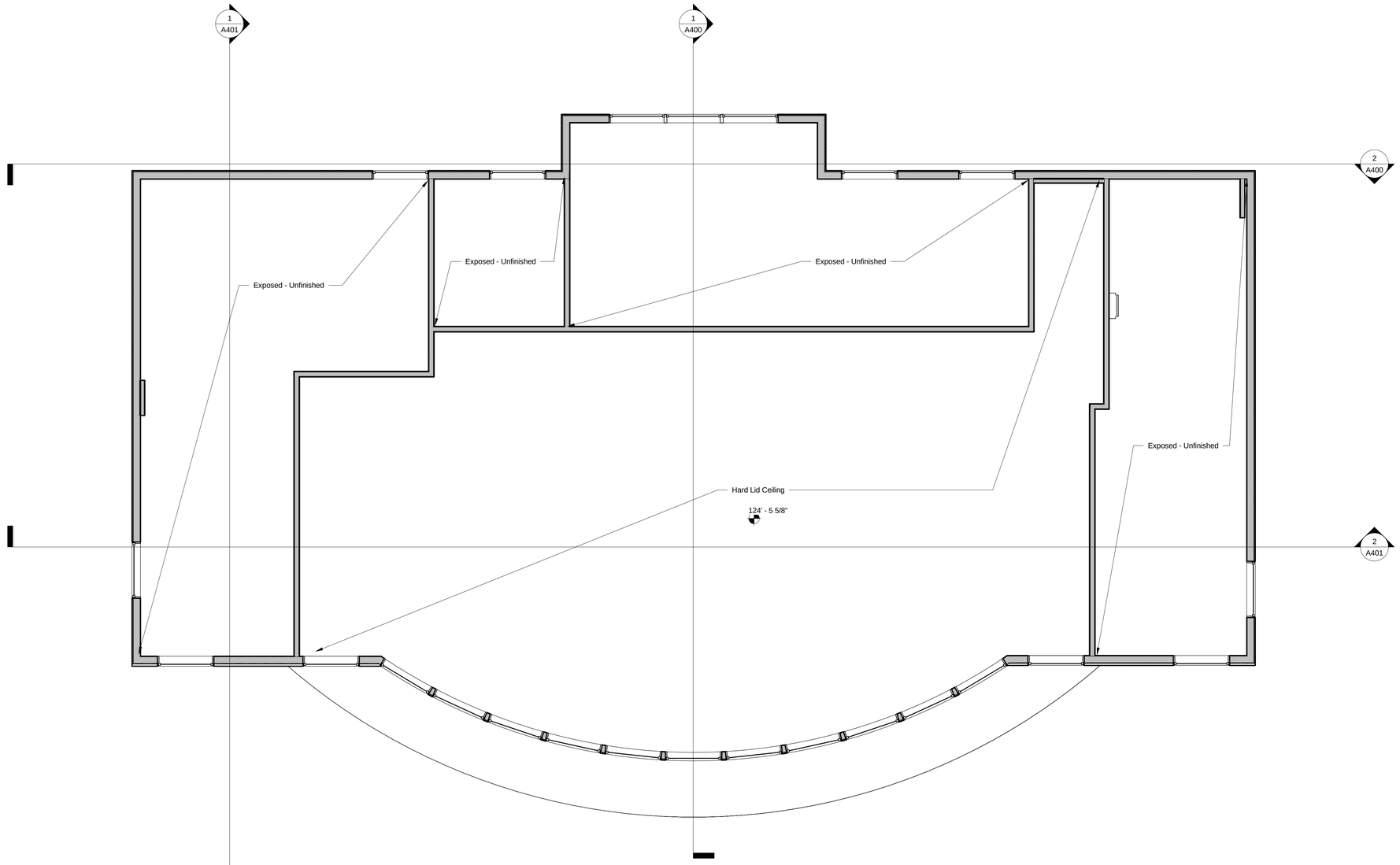
MARK:	DATE:	DESCRIPTION:

PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

STATE OF UTAH · STEVEN R. MANSFIELD · Steven R. Mansfield · 134922 · 1/25/2025 · LICENSED ARCHITECT

Main Floor Reflected Ceiling Plan

A204



1 A205 **2nd Floor Reflected Ceiling Plan**

1/4" = 1'-0"

1/25/2025 10:58:51 AM

MANFIELD ARCHITECTURAL SERVICES
STEVEN R. MANFIELD ARCHITECT
435-565-2328 - FAX 435-563-1464 manfield@ccnet.usu.edu
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS ??????

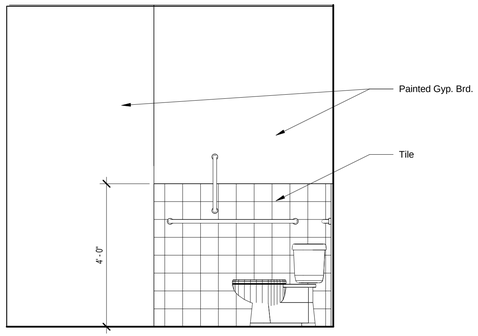
MARK:	DATE:	DESCRIPTION:

PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

STATE OF UTAH
STEVEN MANFIELD
Steven R Manfield
134922
1/25/2025
LICENSED ARCHITECT

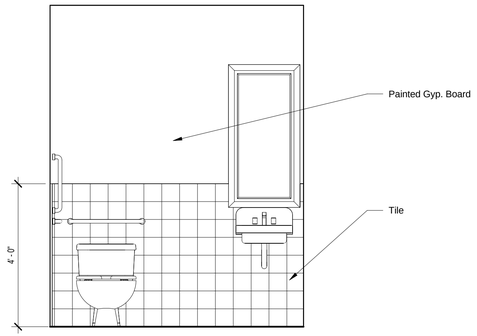
Second Floor Reflected Ceiling Plan

A205



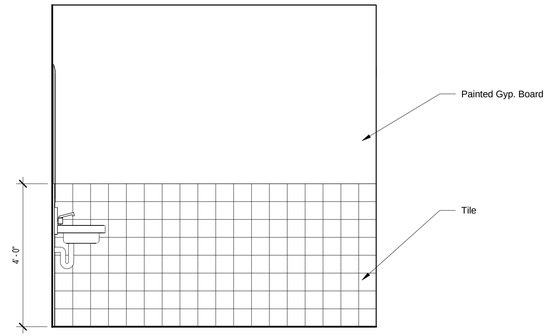
For ADA Mounting Heights refer to 9/A206

1 A206 **Interior Elevation A**
1/2" = 1'-0"



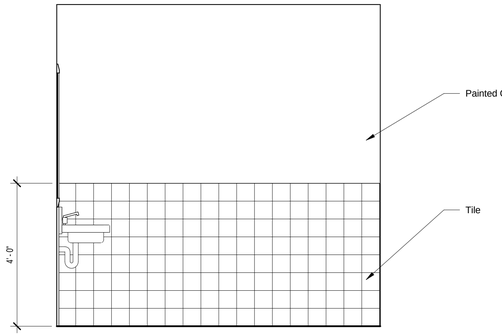
For ADA Mounting Heights refer to 9/A206

2 A206 **Interior Elevation B**
1/2" = 1'-0"



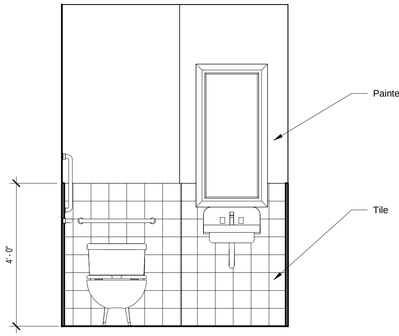
For ADA Mounting Heights refer to 9/A206

3 A206 **Interior Elevation C**
1/2" = 1'-0"



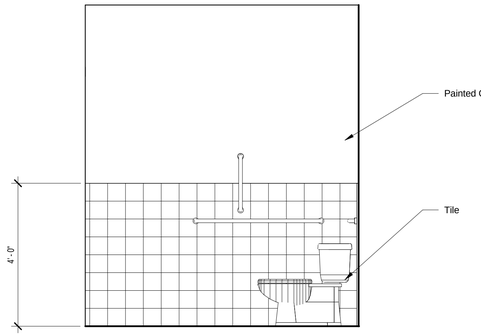
For ADA Mounting Heights refer to 9/A206

6 A206 **Interior Elevation F**
1/2" = 1'-0"



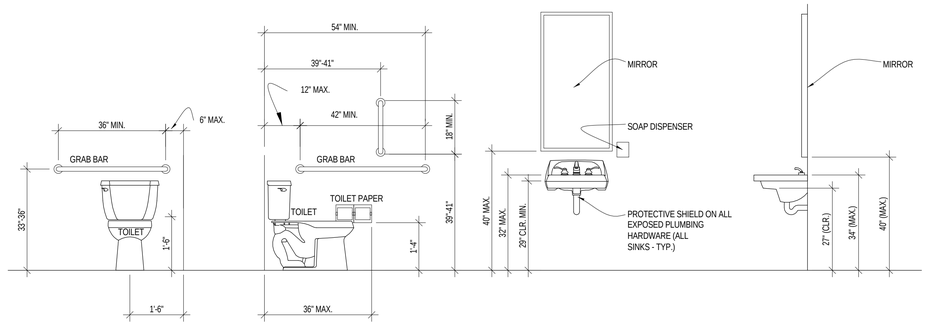
For ADA Mounting Heights refer to 9/A206

5 A206 **Interior Elevation E**
1/2" = 1'-0"



For ADA Mounting Heights refer to 9/A206

4 A206 **Interior Elevation D**
1/2" = 1'-0"



9 A206 **ADA Mounting Heights**
1/2" = 1'-0"

MAS
MANSFIELD ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD, ARCHITECT
435-563-2339 - FAX 435-563-1414 mansfield@ccnet.usu.edu
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS ??????

MARK:	DATE:	DESCRIPTION:

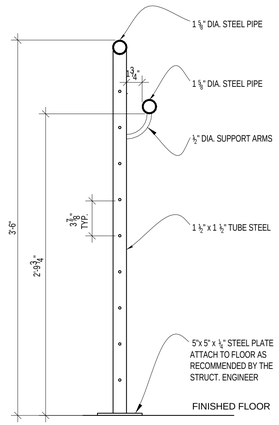
PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

STATE OF UTAH — STEVEN R. MANSFIELD — 134922 — 1/25/2025 — LICENSED ARCHITECT

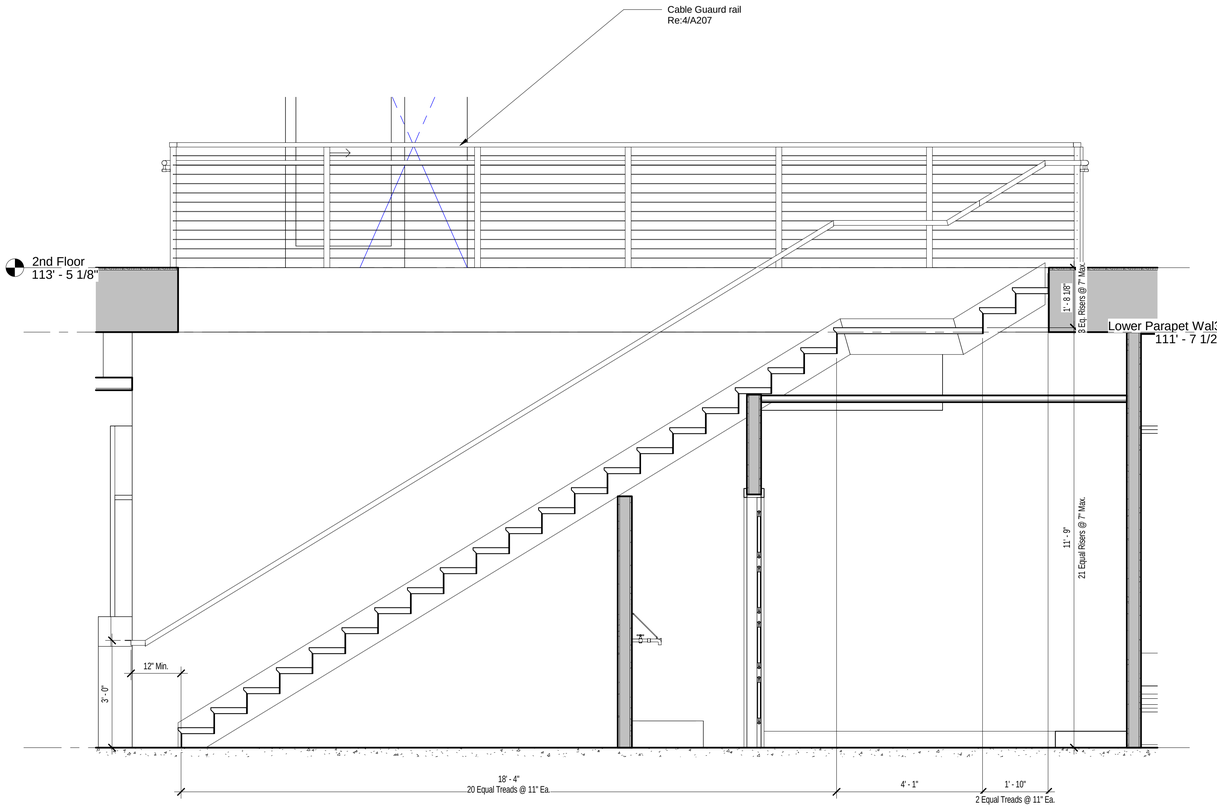
Enlarged Plans & Interior Elevations

A206

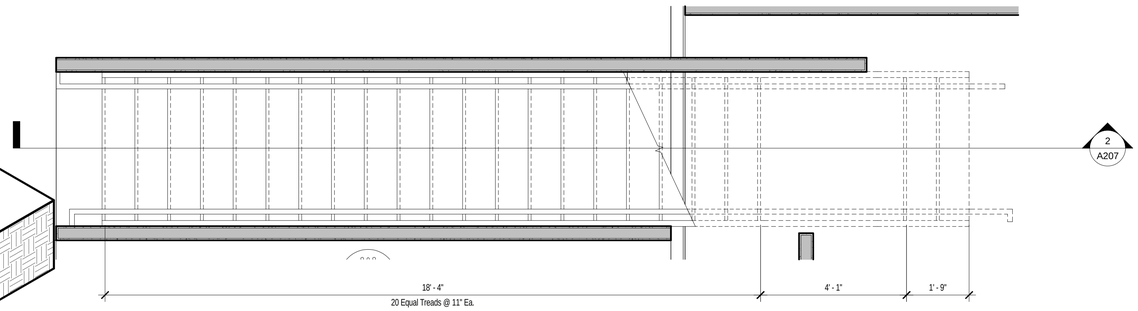
1/25/2025 10:59:00 AM



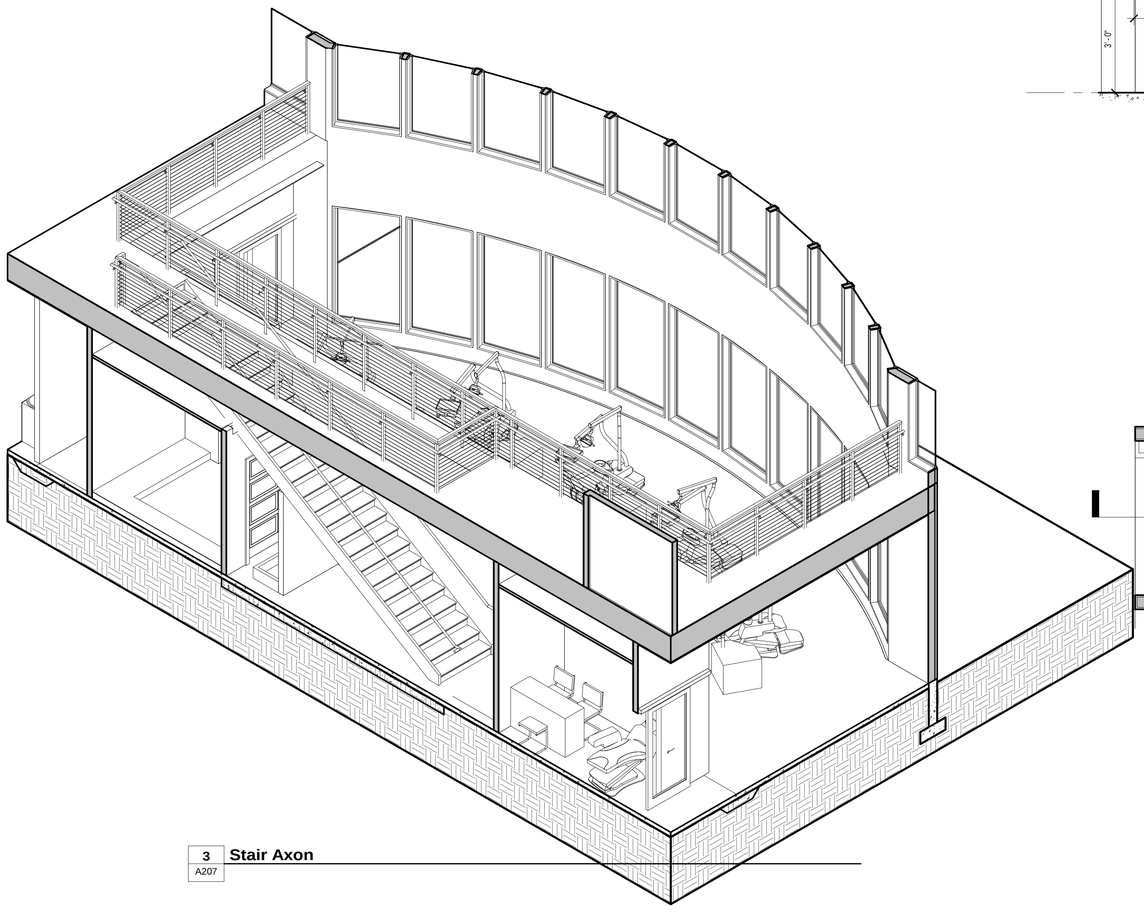
4 A207 **Railing**
1 1/2" = 1'-0"



2 A207 **Stair Section**
1/2" = 1'-0"



1 A207 **Enlarged Stair Plan**
1/2" = 1'-0"



3 A207 **Stair Axon**

1/25/2025 10:59:08 AM

MANSFIELD STUDIO ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD, AIA ARCHITECT
435-565-1239 | FAX: 435-563-1414 | mansfield@ccnet.usu.edu
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME: Doctor Tanner Godfrey
PROJECT ADDRESS: ??????

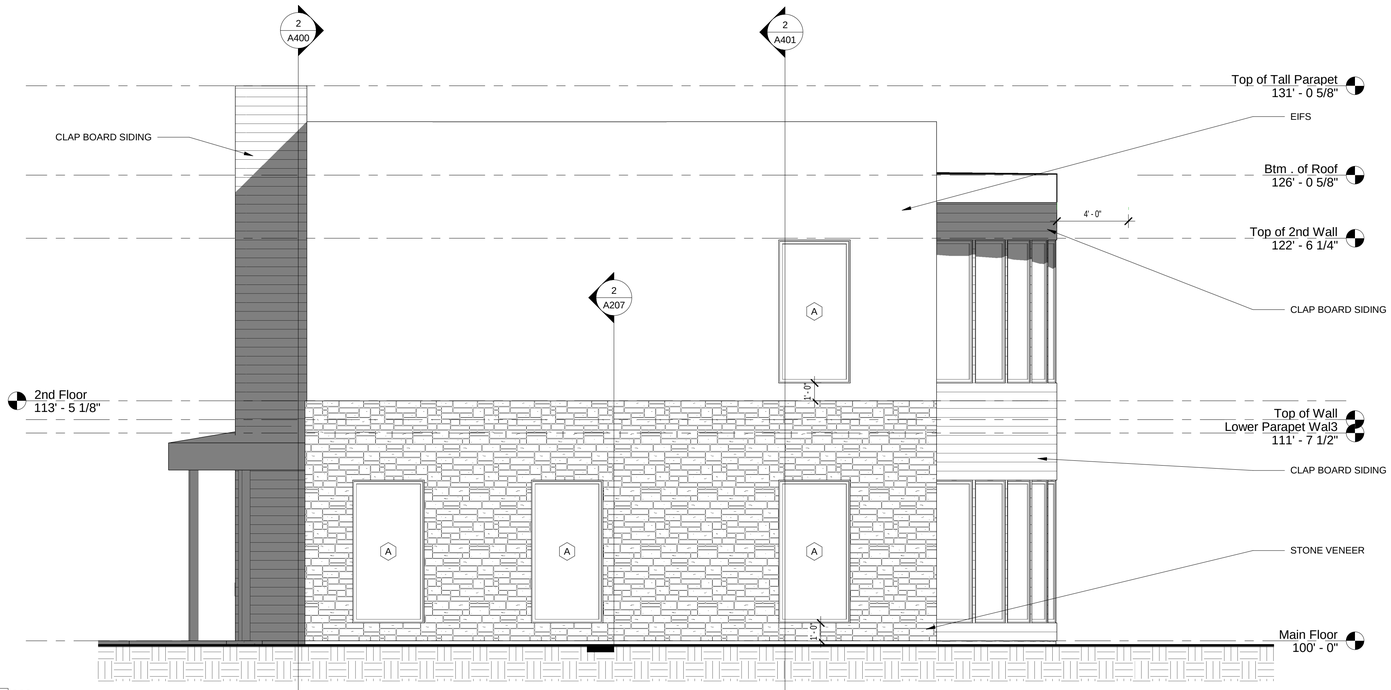
MARK:	DATE:	DESCRIPTION:

PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

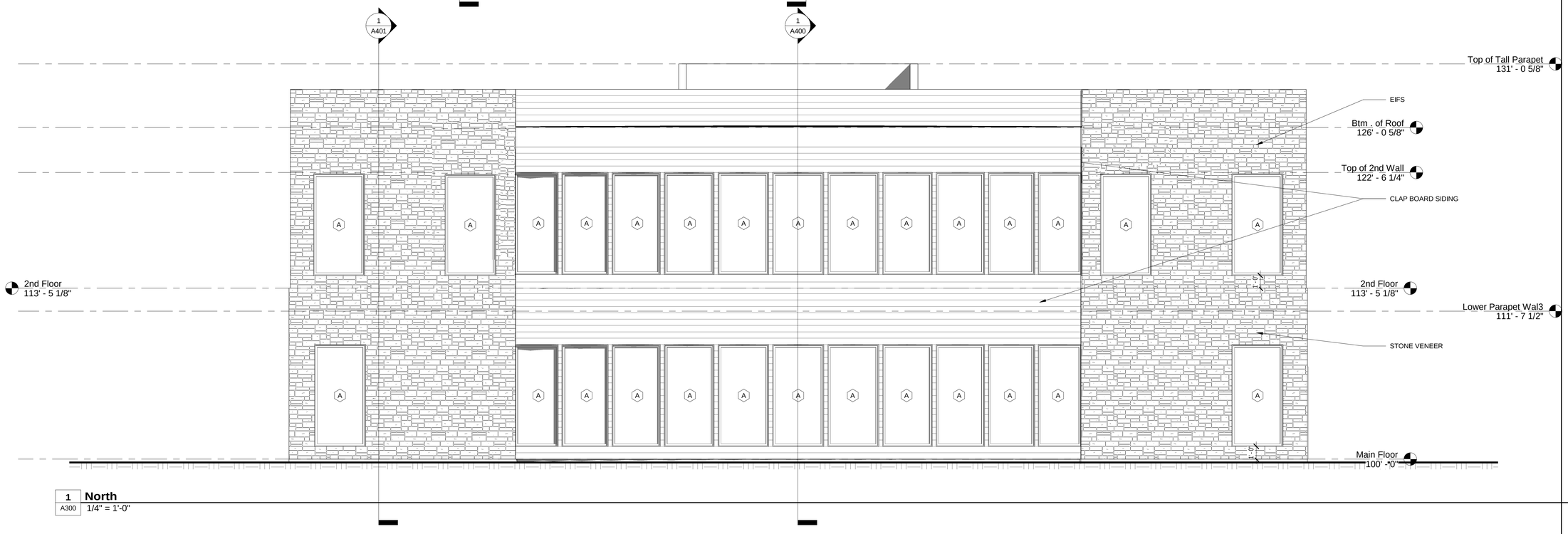
STATE OF UTAH
STEVEN MANSFIELD
Steven R Mansfield
134922
1/25/2025
LICENSED ARCHITECT

Enlarged Stair Plan & Section

A207



2 West
A300 1/4" = 1'-0"



1 North
A300 1/4" = 1'-0"

1/25/2025 10:59:35 AM

MANSFIELD ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD, ARCHITECT
435-563-2339 | FAX 435.563.1484 | manstud@ccnet.net
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS ??????

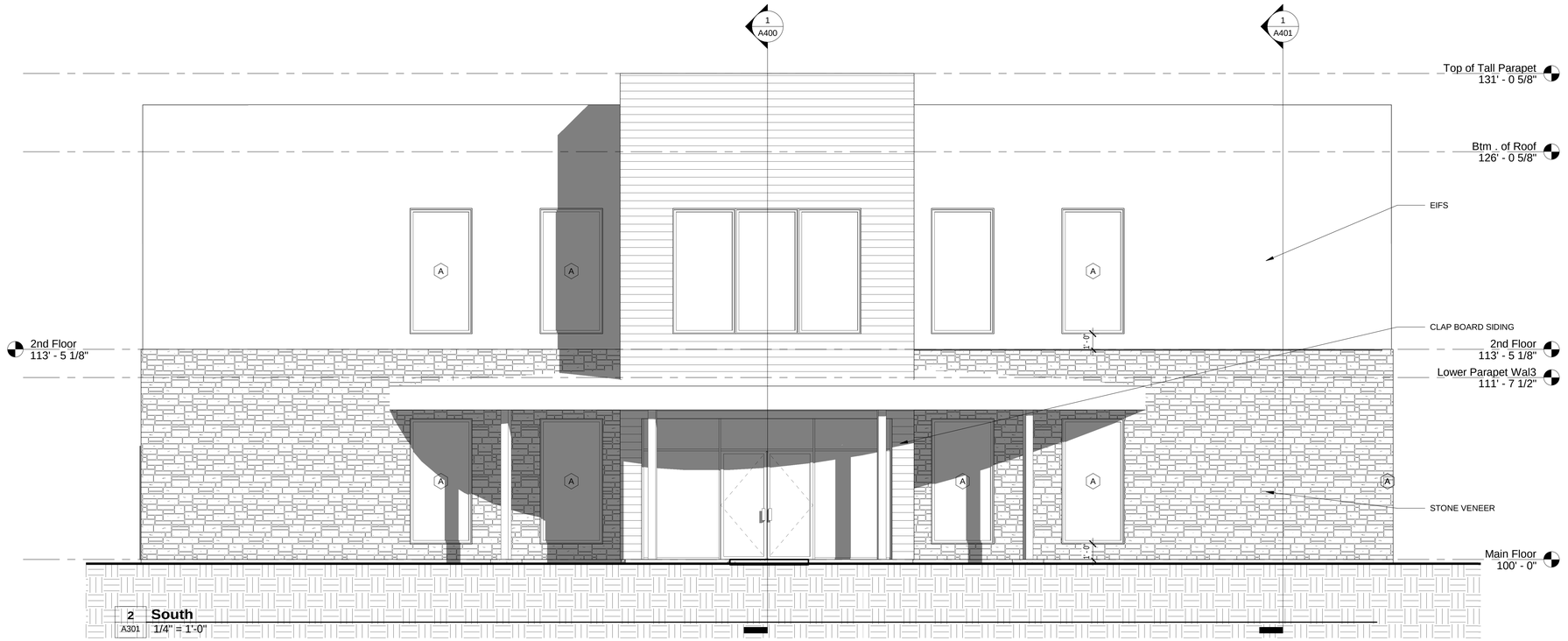
MARK:	DATE:	DESCRIPTION:

PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

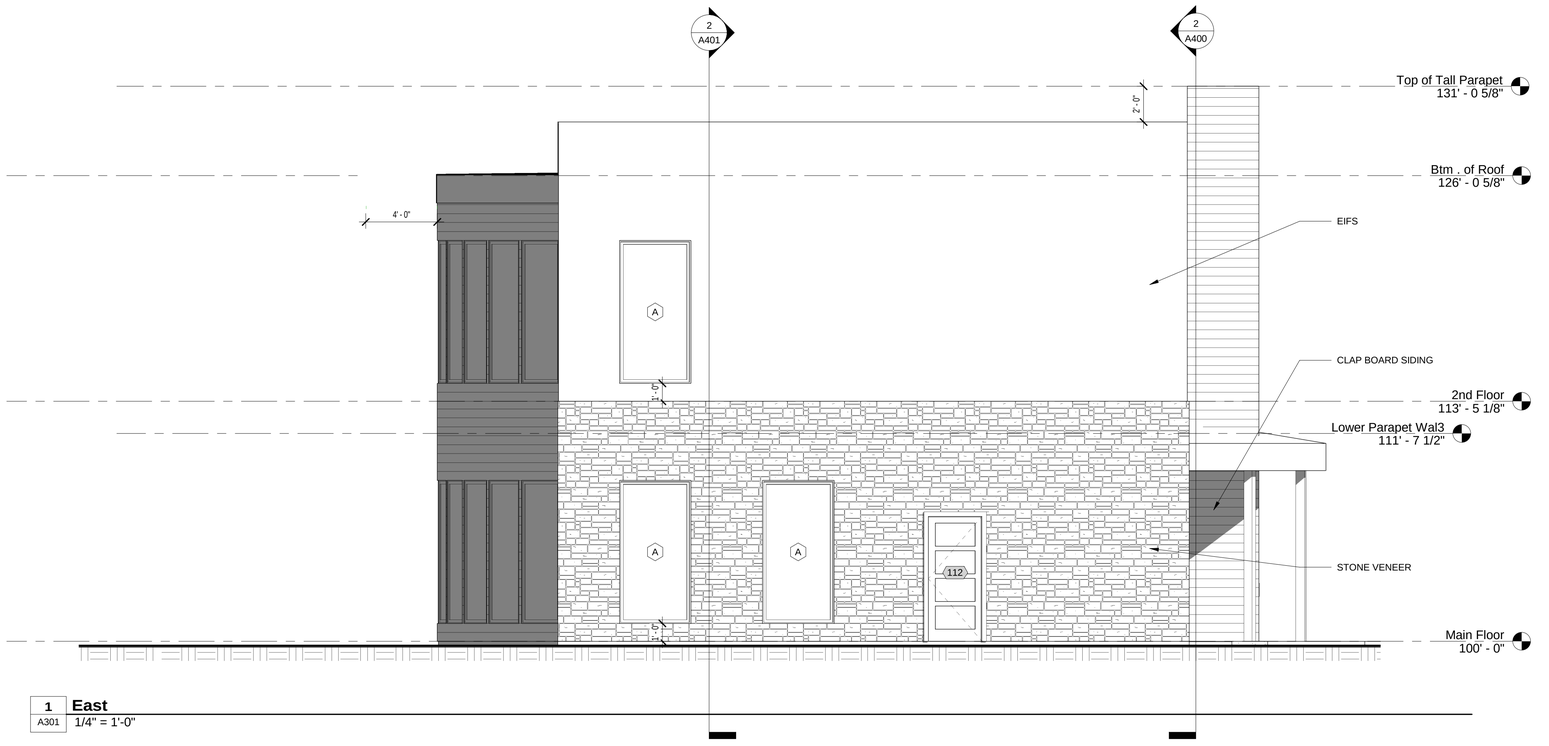
STATE OF UTAH
STEVEN MANSFIELD
Steven R Mansfield
134922
1/25/2025
LICENSED ARCHITECT

Elevations

A300



2 South
A301 1/4" = 1'-0"



1 East
A301 1/4" = 1'-0"

1/25/2025 10:59:50 AM

MANSFIELD ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD ARCHITECT
435-565-1230 - FAX 435-563-1414 mansfield@ccnet.net
40 WEST 3800 NORTH | HYDE PARK, UT 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS ??????

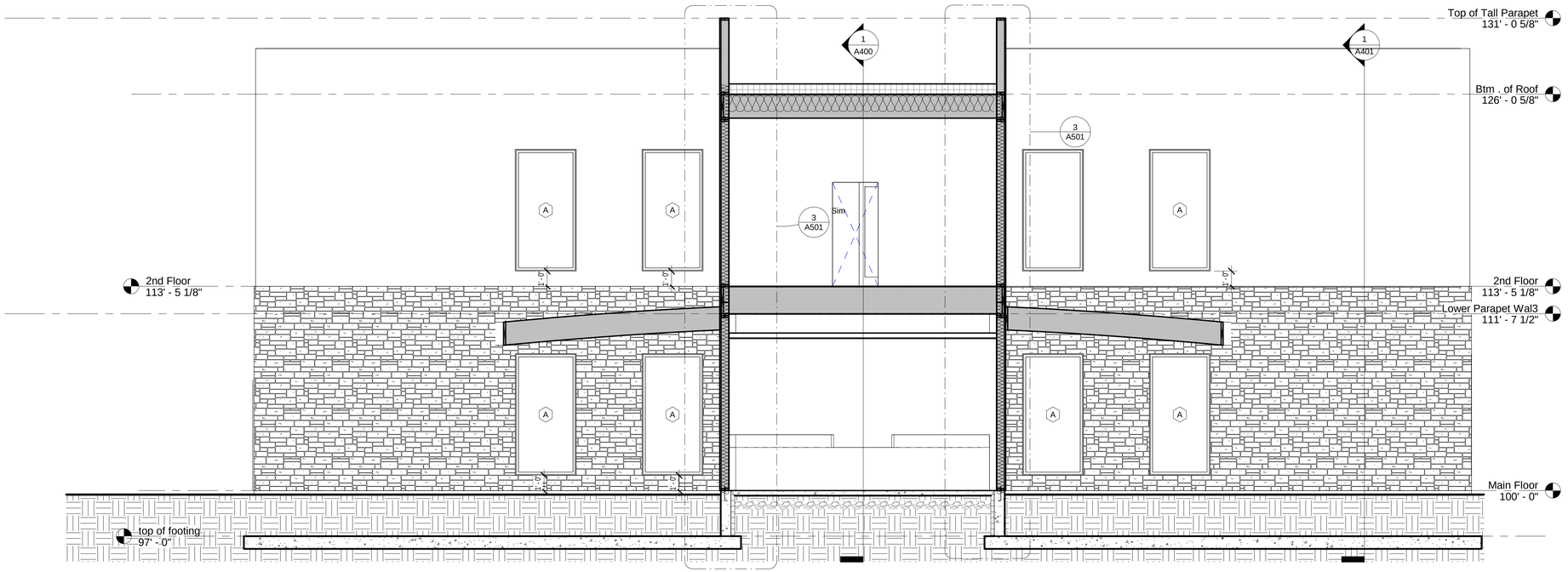
MARK:	DATE:	DESCRIPTION:

PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

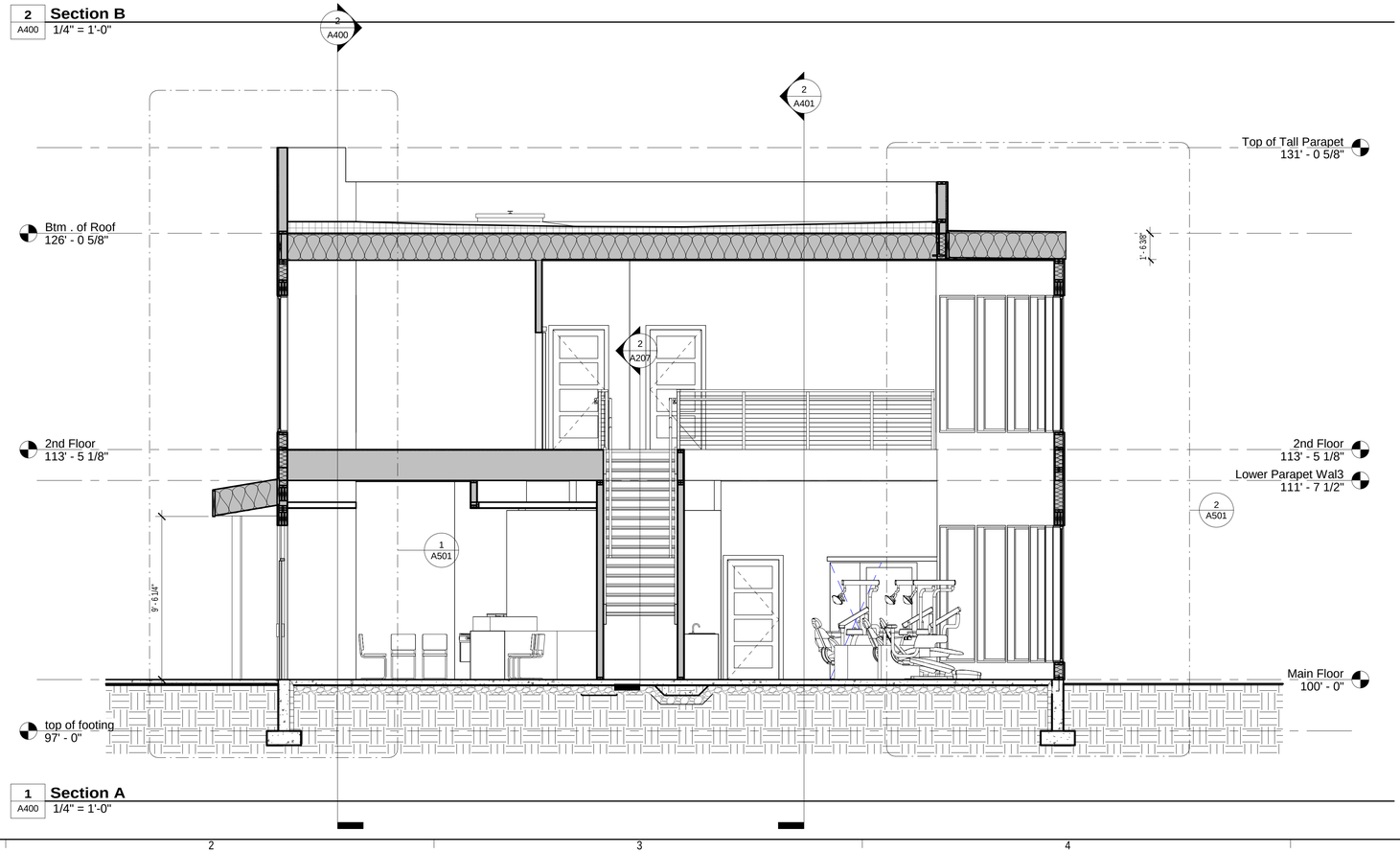
STATE OF UTAH
STEVEN R. MANSFIELD
Steven R. Mansfield
134922
1/25/2025
LICENSED ARCHITECT

Elevations

A301



2 Section B
A400 1/4" = 1'-0"



1 Section A
A400 1/4" = 1'-0"

1/25/2025 10:59:58 AM

MANSFIELD SPENCER R. MANSFIELD ARCHITECT
435-563-2230 - FAX 435-563-1464 mansfield@ccnet.net
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS ??????

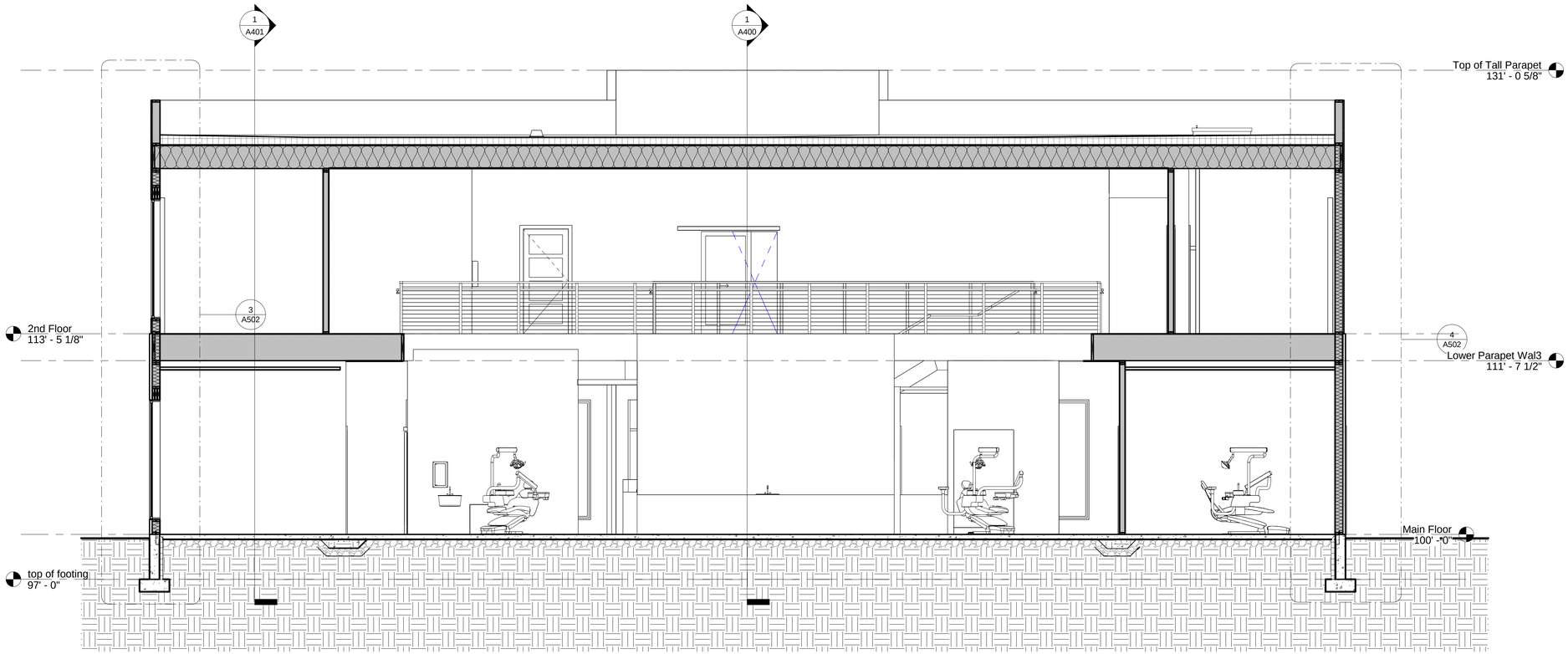
MARK:	DATE:	DESCRIPTION:

PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

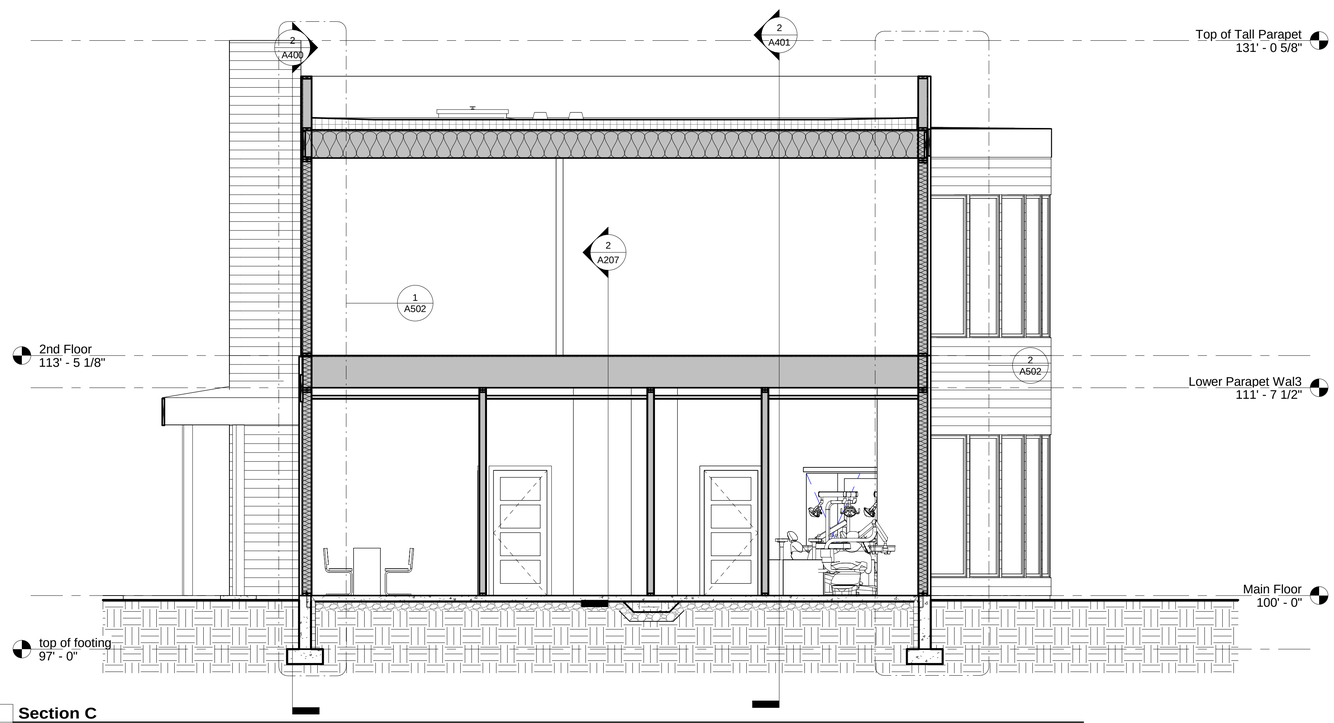
STATE OF UTAH — STEVEN MANSFIELD — Steven R Mansfield — 134922 — 1/25/2025 — LICENSED ARCHITECT

Building Sections

A400



2 Section D
A401 1/4" = 1'-0"



1 Section C
A401 1/4" = 1'-0"

1/25/2025 11:00:08 AM

MANSFIELD ARCHITECTURAL SERVICES
STEPHEN R. MANSFIELD ARCHITECT
435-565-1339 - FAX 435-563-1414 mansfield@cc.usu.edu
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS ??????

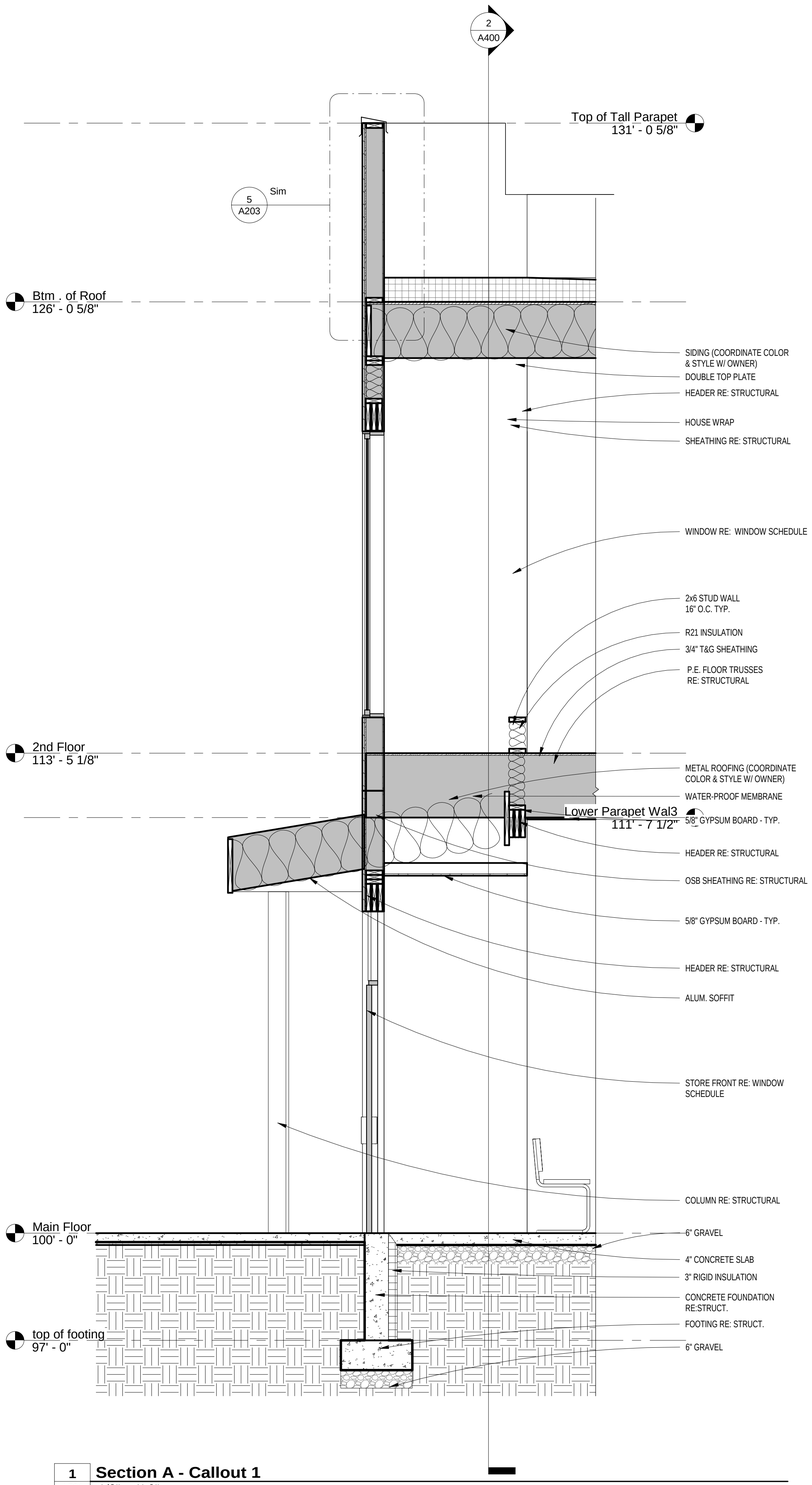
MARK:	DATE:	DESCRIPTION:

PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

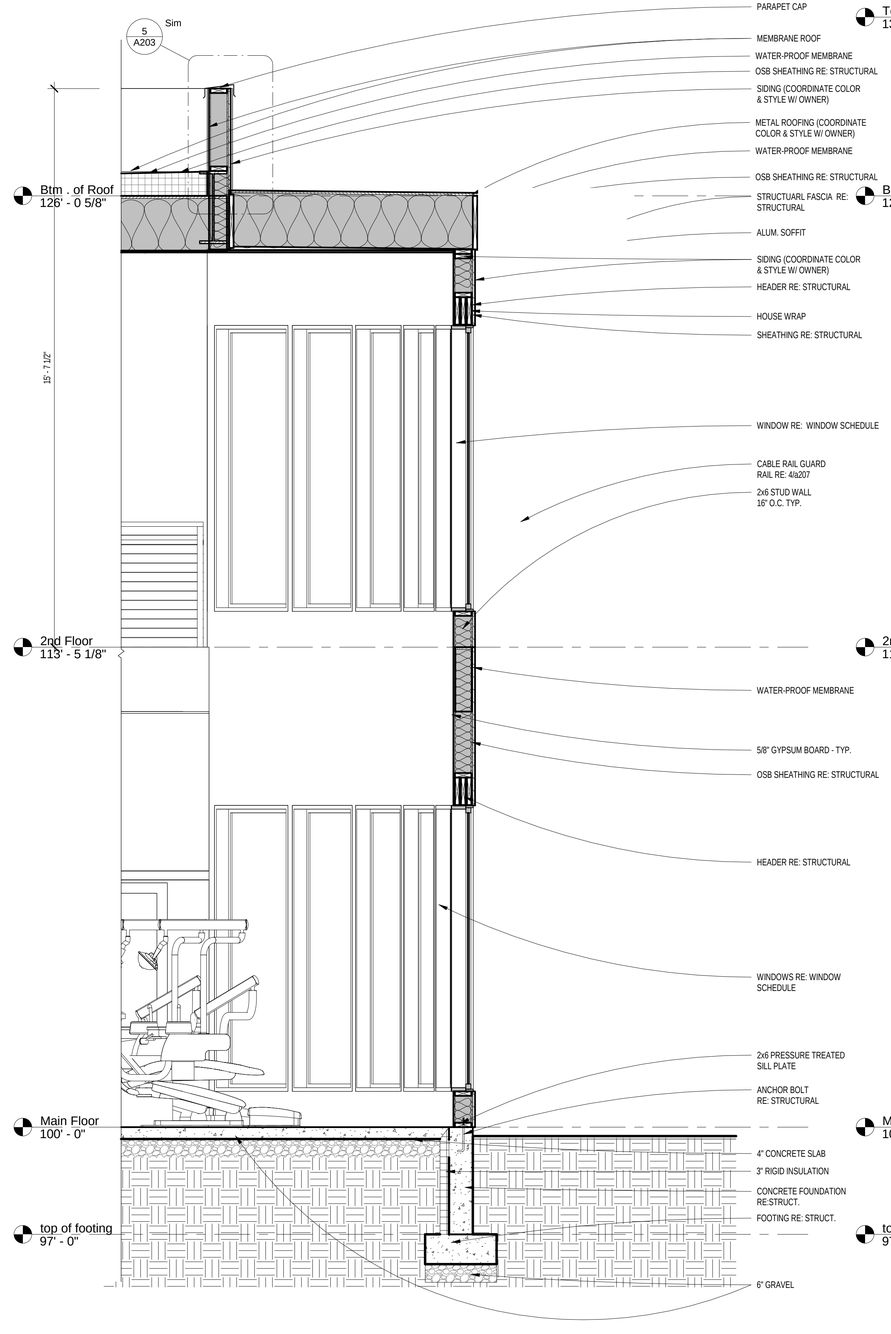
STATE OF UTAH
STEVEN R. MANSFIELD
Steven R. Mansfield
134922
1/25/2025
LICENSED ARCHITECT

Building Sections

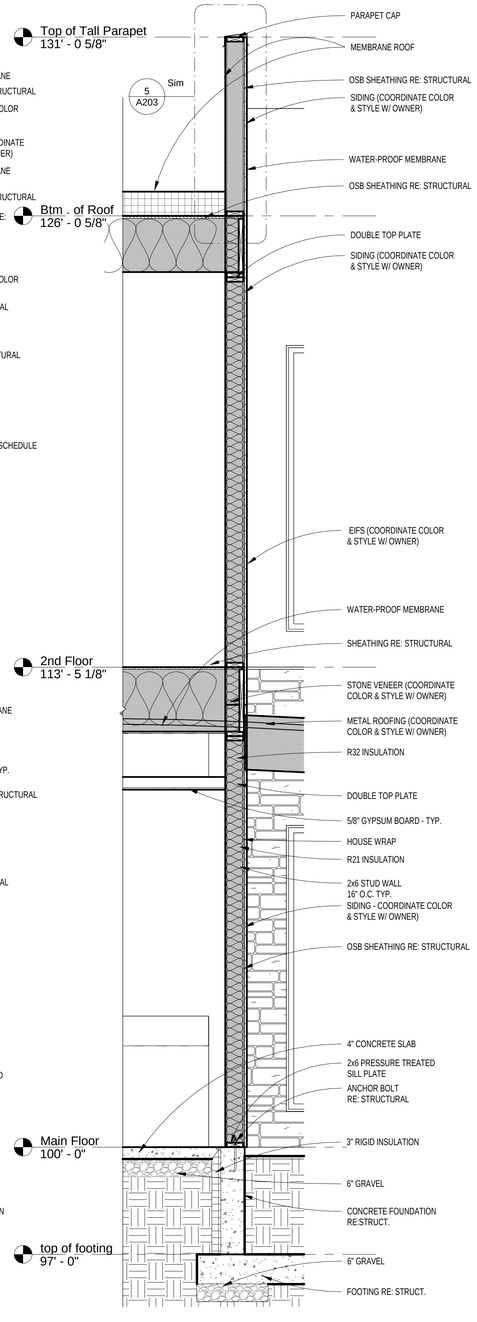
A401



1 A501 **Section A - Callout 1**
1/2" = 1'-0"



2 A501 **Section A - Callout 2**
1/2" = 1'-0"



3 A501 **Section B - Callout 1**
1/2" = 1'-0"

1/25/2025 11:00:14 AM

MANSFIELD ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD, ARCHITECT
435-563-2291 FAX:435.563.1414 mansfield@ccnet.usu.edu
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS ??????

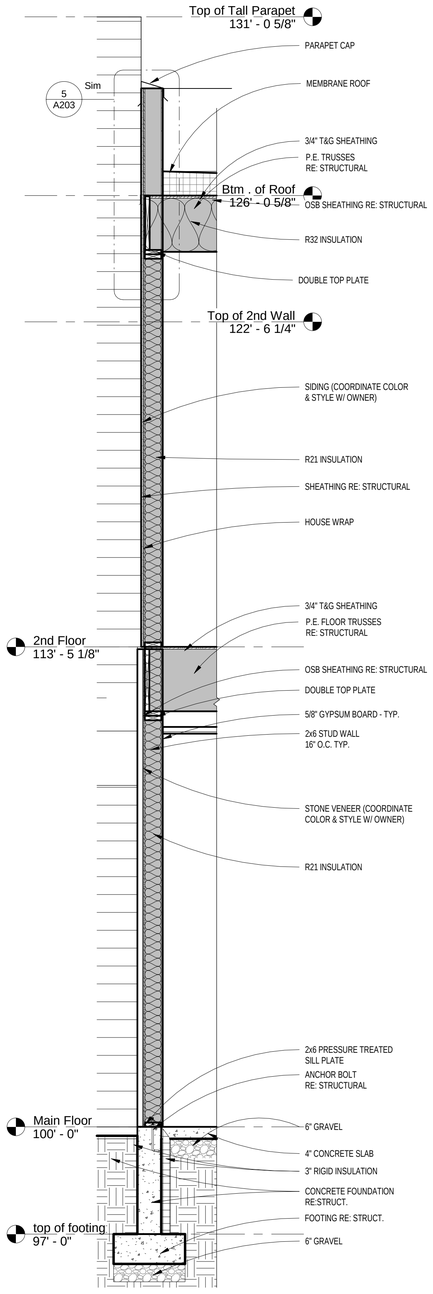
MARK:	DATE:	DESCRIPTION:

PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

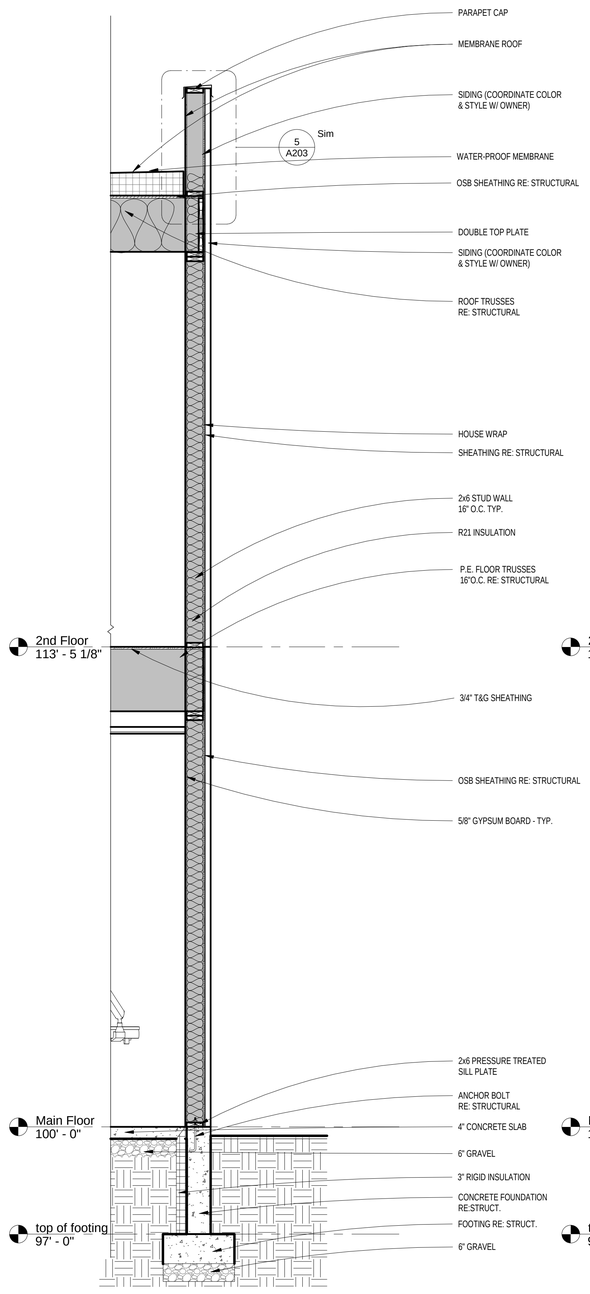
STATE OF UTAH
STEVEN MANSFIELD
Steven R. Mansfield
134922
1/25/2025
LICENSED ARCHITECT

Wall Sections

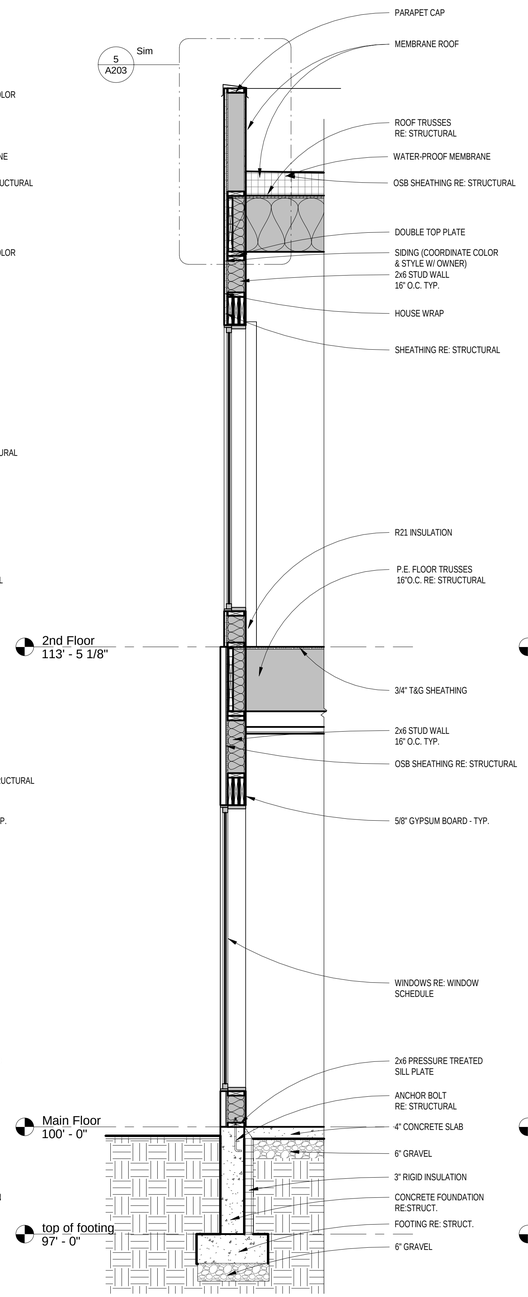
A501



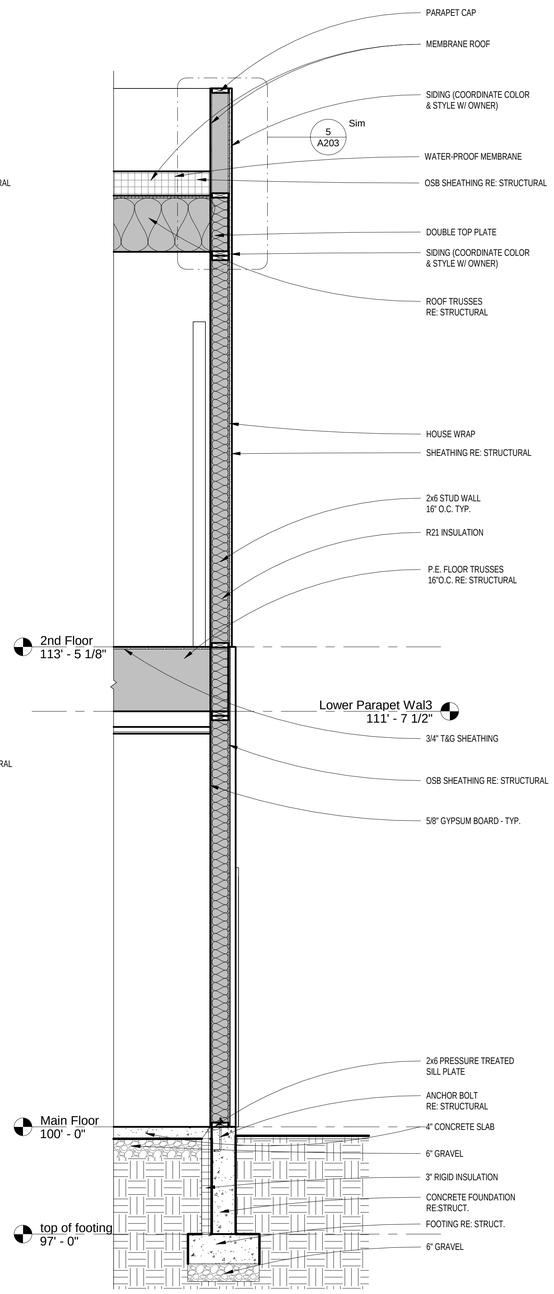
1 A502 **Section C - Callout 2**
1/2" = 1'-0"



2 A502 **Section C - Callout 1**
1/2" = 1'-0"



3 A502 **Section D - Callout 1**
1/2" = 1'-0"



4 A502 **Section D - Callout 2**
1/2" = 1'-0"

1/25/2025 11:00:19 AM

MANSFIELD ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD ARCHITECT
435-563-2339 | FAX 435.563.1454 | manstud@ccnet.usu.edu
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS ??????

MARK:	DATE:	DESCRIPTION:

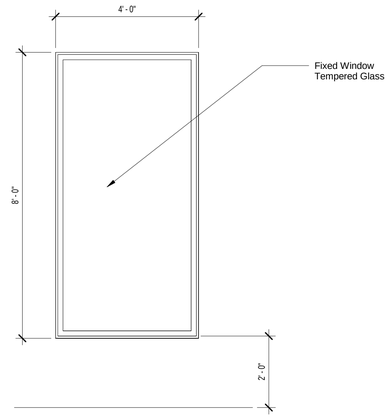
PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

STATE OF UTAH
STEVEN R. MANSFIELD
Steven R. Mansfield
134922
1/25/2025
LICENSED ARCHITECT

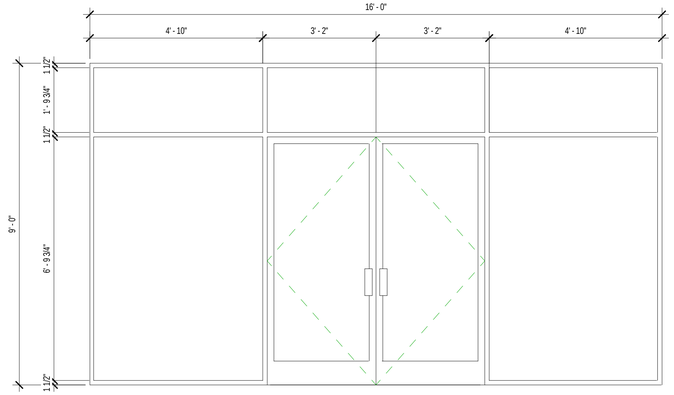
Wall Sections

A502

Note: All Glass to be tempered



Window A
1/2" = 1'-0"



1 A509 **Curtain Wall "1"**
1/2" = 1'-0"

Door Schedule

Door Number	Width	Height	Comments
100	5' - 10 1/2"	6' - 11 1/4"	
101	3' - 0"	7' - 0"	
102	3' - 0"	7' - 0"	
103	3' - 0"	7' - 0"	
105	3' - 0"	6' - 10"	
107	3' - 0"	7' - 0"	
109	3' - 0"	6' - 10"	
110	3' - 0"	7' - 0"	
111	3' - 0"	7' - 0"	
112	3' - 0"	7' - 0"	
113	3' - 0"	7' - 0"	
114	3' - 0"	7' - 0"	
201	3' - 0"	7' - 0"	
202	3' - 0"	6' - 10"	
203	3' - 0"	7' - 0"	
204	3' - 0"	7' - 0"	
205	3' - 0"	7' - 0"	

MASTERED ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD, ARCHITECT
435-563-2339 - FAX 435-563-1464 mansfield@ccnet.net
40 WEST 3800 NORTH | HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS ??????

MARK:	DATE:	DESCRIPTION:

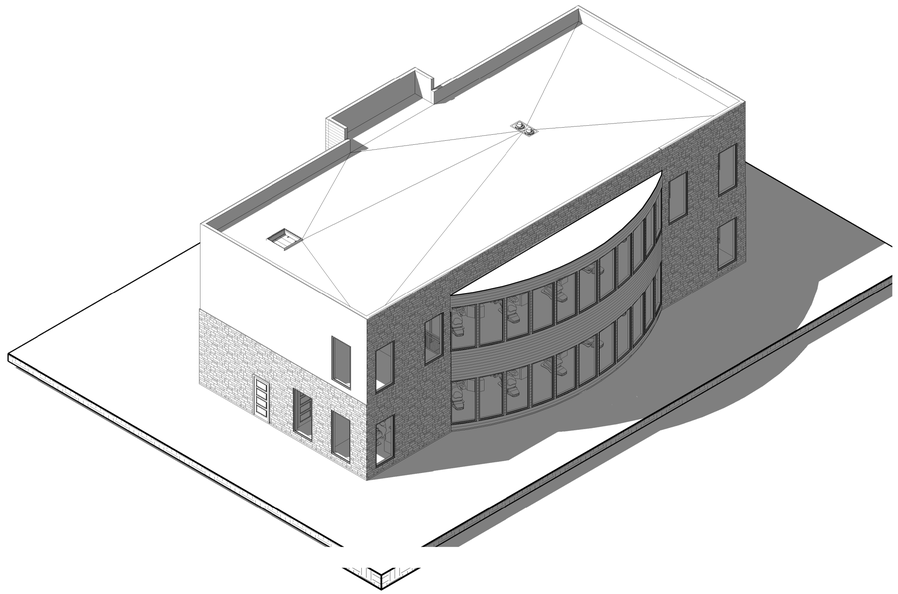
PROJECT #: 338
DESIGNED BY: srm
DRAWN BY: srm
CHECKED BY: srm
ISSUED : Jan. 25, 2025

STATE OF UTAH
STEVEN MANSFIELD
Steven R Mansfield
134922
1/25/2025
LICENSED ARCHITECT

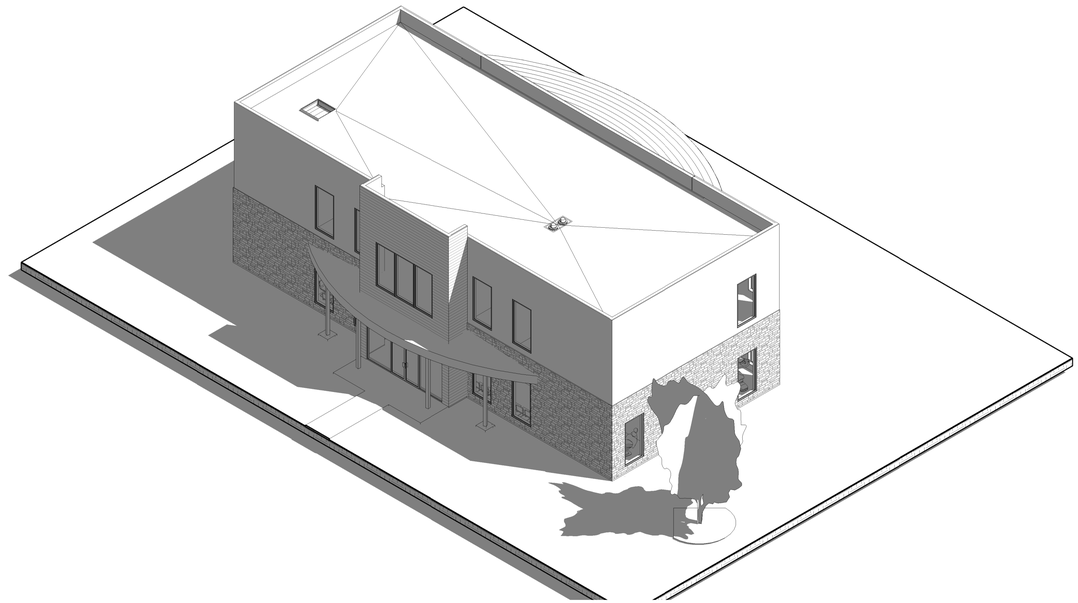
Door & Window Schedules

A509

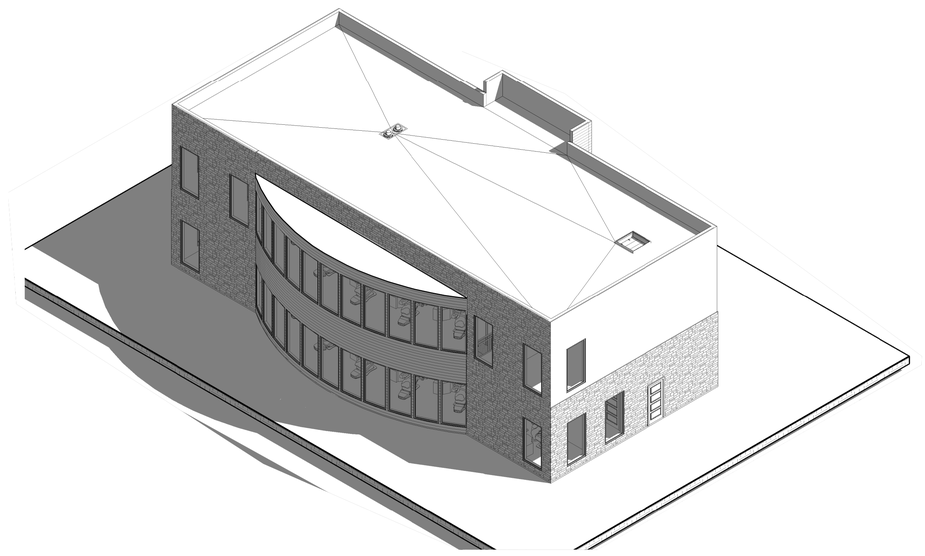
1/25/2025 11:00:21 AM



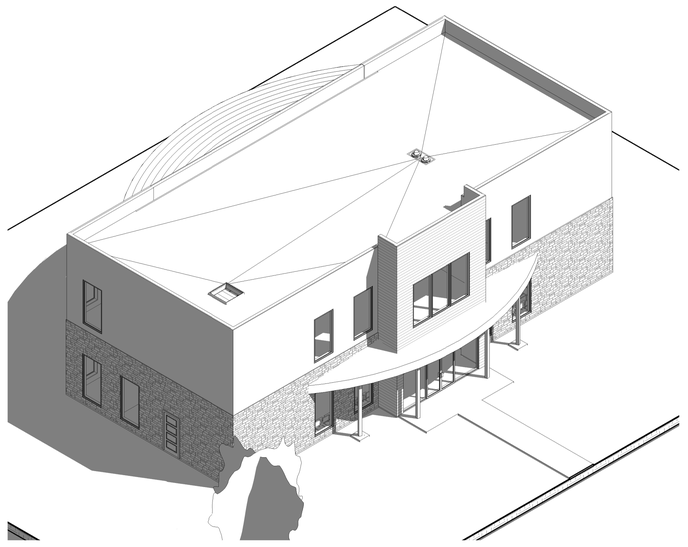
1 A900 **Axon 1**



4 A900 **Axon 4**



2 A900 **Axon 2**



3 A900 **Axon 3**

1/25/2025 11:00:41 AM

MANSFIELD ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD ARCHITECT
435-565-2329 - FAX 435.563.1454 mansfield@ccnet.net
40 WEST 3800 NORTH, HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey

PROJECT ADDRESS ??????

MARK:	DATE:	DESCRIPTION:

PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

STATE OF UTAH
STEVEN MANSFIELD
Steven R Mansfield
134922
1/25/2025
LICENSED ARCHITECT

3d Views

A900



MAS
MANFIELD ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD ARCHITECT
435-565-2329 - FAX 435.563.1454 mansfield@ccnet.net
40 WEST 3800 NORTH, HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey

PROJECT ADDRESS ??????

MARK:	DATE:	DESCRIPTION:

PROJECT #: 338

DESIGNED BY: SRM

DRAWN BY: SRM

CHECKED BY: SRM

ISSUED : Jan. 25, 2025

STATE OF UTAH
STEVEN R. MANSFIELD
134922
1/25/2025
LICENSED ARCHITECT

Renderings

A901

1/25/2025 11:00:47 AM





MANSFIELD ARCHITECTURAL SERVICES
STEVEN R. MANSFIELD ARCHITECT
435-565-1339 - FAX 435-563-1454 mansfield@ccnet.edu
40 WEST 3800 NORTH, HYDE PARK, UTAH 84318

Godfrey Orthodontics

OWNERS NAME Doctor Tanner Godfrey
PROJECT ADDRESS
?????

MARK:	DATE:	DESCRIPTION:

PROJECT #: 338
DESIGNED BY: SRM
DRAWN BY: SRM
CHECKED BY: SRM
ISSUED : Jan. 25, 2025

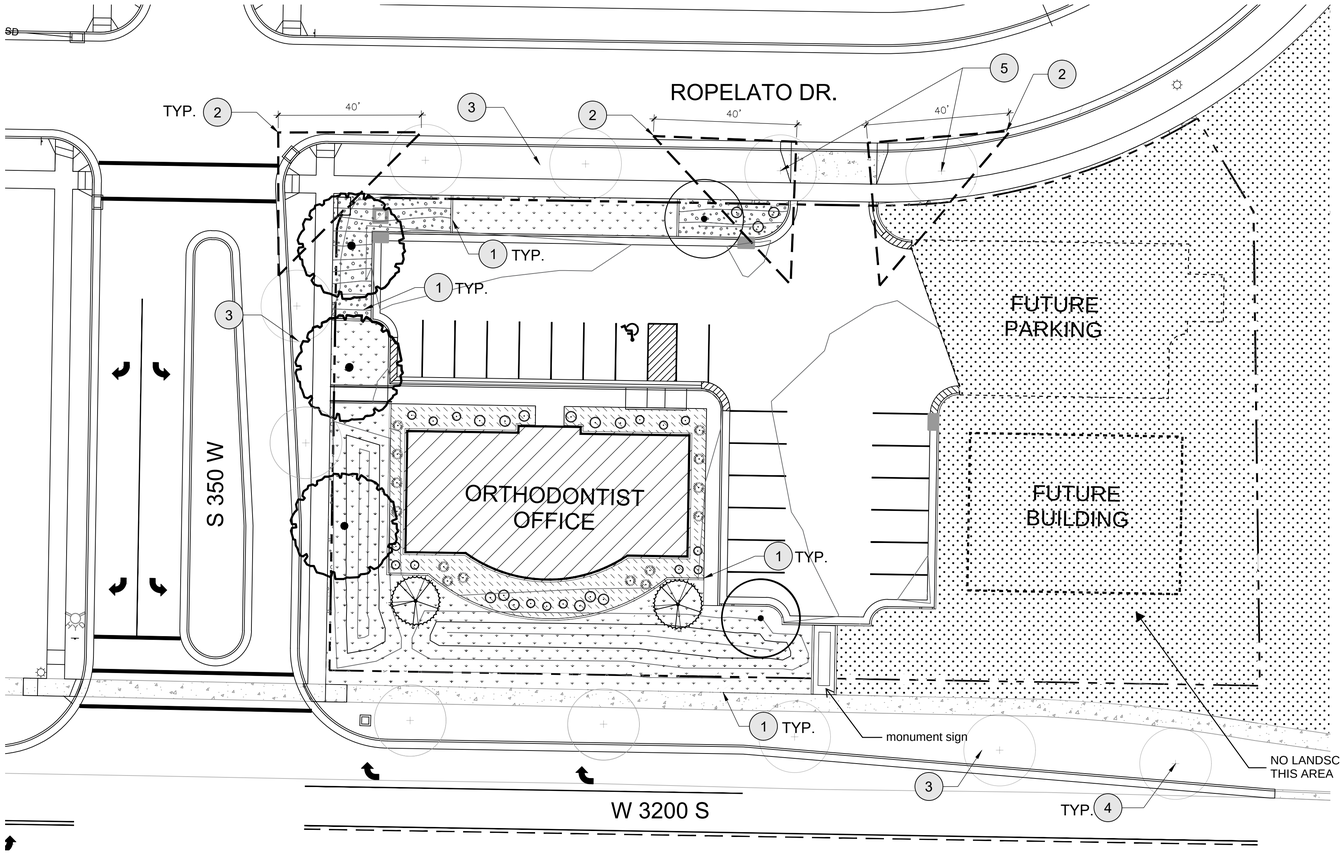
STATE OF UTAH
STEVEN MANSFIELD
Steven R Mansfield
134922
1/25/2025
LICENSED ARCHITECT

Renderings

A902

1/25/2025 11:00:50 AM

SHEET NOTES:
1. CONTRACTOR TO VERIFY QUANTITIES.
2. EXISTING GRASS + TREES TO REMAIN
3. EXISTING IRRIGATION VALVE BOXES AND MAINLINE TO REMAIN. SEE IRRIGATION SHEETS.
4. CONCRETE MOWSTRIP AT ALL TURF GRASS EDGES.



PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	CAL
TREES					
	MS	4	MALUS X `SPRING SNOW` / SPRING SNOW CRAB APPLE	B&B	2"CAL
	PH2	2	PICEA PUNGENS 'HOOPSII' / HOOPSII COLORADO SPRUCE	B&B	7' HT
	QM2	6	QUERCUS MACROCARPA / BURR OAK	B&B	3``
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT	HEIGHT
SHRUBS					
	CI	12	CORNUS ALBA `IVORY HALO` TM / TATARIAN DOGWOOD	5 GAL	
	RR	4	RHAMNUS FRANGULA `FINE LINE` / FINE LINE BUCKTHORN	5 GAL.	
	RG	15	RHUS AROMATICA `GRO-LOW` / GRO-LOW FRAGRANT SUMAC	5 GAL.	
PERENNIALS AND GRASSES					
	CK	20	CALAMAGROSTIS X ACUTIFLORA `KARL FOERSTER` / FEATHER REED GRASS	1 GAL	
	CD	18	CARYOPTERIS X CLANDONENSIS 'DARK KNIGHT' / DARK KNIGHT BLUEBEARD	5 GAL.	
	SL	15	SCHIZACHYRIUM SCOPARIUM 'THE BLUES' / LITTLE BLUESTEM	5 GAL	

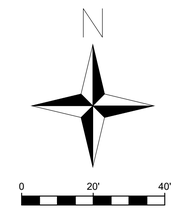
REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY	DETAIL
1	CONCRETE MOWSTRIP: 6" WIDE		1/L301
2	40` X 40` SIGHT TRIANGLE (STREET/DRIVE INTERSECTION)		
3	EXISTING GRASS AND TREES TO REMAIN, REPAIR IRRIGATION AS NEEDED		
4	EXISTING TREE TO REMAIN		
5	EXISTING YOUNG TREES TO BE REMOVED		
	TURF GRASS: SOD (IMPERIAL BLUE FROM CHANSHARE SOD OR APPROVED EQUAL) INSTALLED OVER 5" TOPSOIL LAYER.	2,260 SF	1/L301
	1", "BORDER ROCK" FROM BEAR RIVER OR APPROVED EQUAL INSTALLED AT A DEPTH OF 3" OVER DEWITT PRO 5 WEED FABRIC	2,162 SF	1/L301
	BARK MULCH (BLACK WOOD MULCH FROM MILLER COMPANIES LC OR APPROVED EQUAL) INSTALLED AT DEPTH OF 3" WITHOUT WEED BARRIER FABRIC.	6,044 SF	1/L301
	3-5", "BORDER ROCK" FROM BEAR RIVER OR APPROVED EQUAL INSTALLED AT A DEPTH OF 3" OVER DEWITT PRO 5 WEED FABRIC	7,484 SF	
	UN-LANDSCAPED AREA, TO BE FINISHED WITH FUTURE BUILDING		

NIBLEY CITY - COMMERCIAL AND NEIGHBORHOOD

LANDSCAPE REQUIREMENTS

PLANT TYPE	REQUIREMENT	NUMBER REQUIRED	NUMBER PLANNED
*SITE TREES	1 TREE PER 300 SF. FT. OF LANDSCAPE	23	24
TOTAL LANDSCAPE	20% OF SITE TO BE LANDSCAPED	20%	39%
*SITE TREES INCLUDE EXISTING PARK STRIP			



THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF CIVIL SOLUTIONS GROUP, INC, AN SHALL NOT BE PHOTOCOPIED, RE-DRAWN, OR USED ON ANY OTHER PROJECT OTHER THAN THE PROJECT SPECIFICALLY DESIGNED FOR, WITHOUT WRITTEN PERMISSION. THE OWNERS AND ENGINEERS OF CIVIL SOLUTIONS GROUP, INC. DISCLAIM ANY LIABILITY FOR ANY CHANGES OR MODIFICATIONS MADE TO THESE PLANS OR THE DESIGN THEREON WITHOUT THEIR CONSENT. THESE PLANS ARE DRAWN TO SCALE WHEN PLOTTED ON A 24" X 36" SHEET OF PAPER. THESE PLANS ARE PRODUCED IN COLOR AND SHOULD BE PLOTTED AS SUCH.

civilsolutionsgroup inc.
CACHE VALLEY | P: 435.213.3762
SALT LAKE | P: 801.216.3192
UTAH VALLEY | P: 801.874.1432
info@civilsolutionsgroup.net
www.civilsolutionsgroup.net

GODFREY DENTAL OFFICE
340 W & 3200 S
NIBLEY, UT 84321

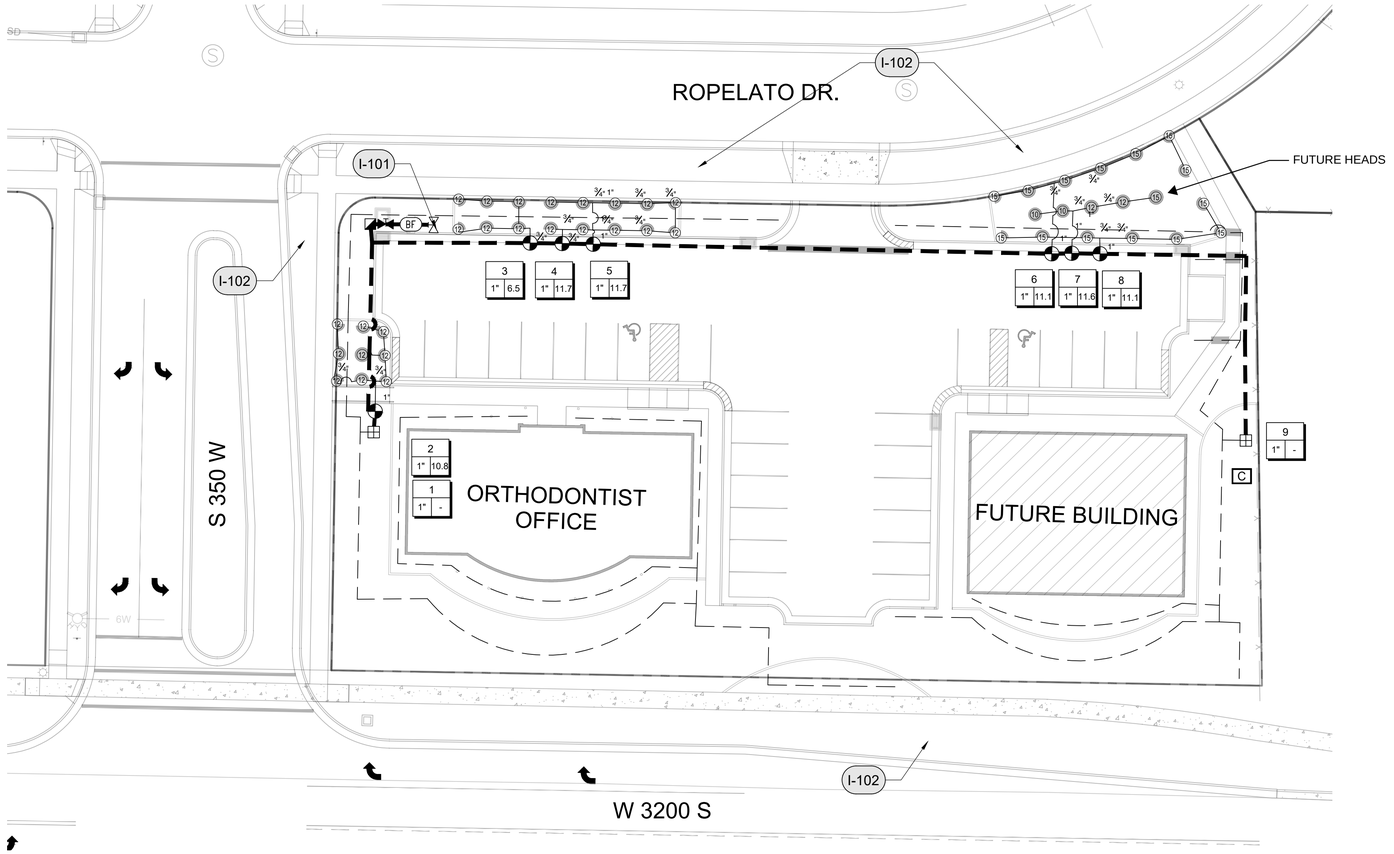
MARK	DATE	DESCRIPTION

PROJECT #:	24-256
DRAWN BY:	S. B.
REVIEWED BY:	J. H.
ISSUED:	09.23.24

STATE OF UTAH
09.23.24
JACOB A. HENDRICKSON
LICENSED LANDSCAPE ARCHITECT
10110348

LANDSCAPE SITE PLAN

L101



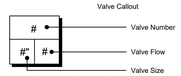
IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	DETAIL
10 Q, 10 T, 10 H, 10 F	RAIN BIRD 1806-SAM-PRS 10 SERIES MPR TURF SPRAY 6.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, AND PRESSURE REGULATING.	2	30	4/L303
12 Q, 12 T, 12 H, 12 TQ, 12 F	RAIN BIRD 1806-SAM-PRS 12 SERIES MPR TURF SPRAY 6.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, AND PRESSURE REGULATING.	27	30	4/L303
15 Q, 15 T, 15 H, 15 TQ, 15 F	RAIN BIRD 1806-SAM-PRS 15 SERIES MPR TURF SPRAY 6.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, AND PRESSURE REGULATING.	15	30	4/L303

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
⊞	RAIN BIRD XCZ-100-PRB-COM WIDE FLOW DRIP CONTROL KIT FOR COMMERCIAL APPLICATIONS. 1" BALL VALVE WITH 1" PESB VALVE AND 1" PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER. 0.3GPM TO 20GPM.	2	6/L302

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
◓	RAIN BIRD PEB 1", 1-1/2", 2" PLASTIC INDUSTRIAL VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION.	7	5/L303
◪	RAIN BIRD 33-DRC 3/4IN. BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, THERMOPLASTIC RUBBER COVER, DOUBLE TRACK KEY LUG, AND 2-PIECE BODY.	1	5/L302
⧖	MARK II ORISEAL STOP AND WASTE VALVE FROM MUELLER CO. SIZE TO MATCH MAINLINE.	1	4/L302
⧗	NIBCO T-113 CLASS 125 BRONZE GATE SHUT OFF VALVE WITH WHEEL HANDLE, SAME SIZE AS MAINLINE PIPE DIAMETER AT VALVE LOCATION. SIZE RANGE - 1/4IN. - 3IN.	1	3/L302
BF	WILKINS 375 1" REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY.	1	2/L302
C	RAIN BIRD ESP-LXME COMMERCIAL CONTROLLER MOUNTED IN A STAINLESS STEEL PEDESTAL. (RAINBIRD LXMMPED OR APPROVED EQUAL) COORDINATE ACTUAL LOCATION WITH OWNER AND ELECTRICAL PLANS. ADD MODULES AS NEEDED. SEE DETAIL	1	7/L302
———	IRRIGATION LATERAL LINE: PVC SCHEDULE 40	437.6 L.F.	2/L303
— — —	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 (DISTRIBUTION PIPING, EMITTERS, AND TREE WATERING NOT SHOWN FOR GRAPHIC CLARITY).	1,101 L.F.	2/L303
— — —	IRRIGATION MAINLINE: PVC SCHEDULE 40, 1"	373.8 L.F.	2/L303
▬	PIPE SLEEVE: PVC SCHEDULE 40	56.7 L.F.	3/L303

Valve Callout

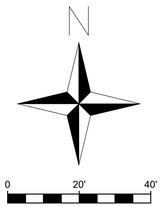


IRRIGATION SCHEDULE

CODE	DESCRIPTION	DETAIL
I-101	CONNECT TO BUILDING SUPPLY LINE PER ALL APPLICABLE PLUMBING CODES AND REGULATIONS. SEE CIVIL PLANS FOR SIZE AND LOCATION.	
I-102	REPAIR AS NEEDED AND KEEP ON EXISTING CONTROLLER. IT IS UNDERSTOOD THAT PARKSTRIP IRRIGATION IS TO BE ON SEPERATE SYSTEM THEN SITE IRRIGATION.	

IRRIGATION PLAN NOTES:

1. CONTRACTOR TO VERIFY QUANTITIES.
2. INSTALL RSD RAINBIRD RAIN SENSOR FOR EACH CONTROLLER. INSTALL AND CONNECT TO CONTROLLER PER MANUFACTURER'S RECOMMENDATION.
3. PROTECT AND PRESERVE EXISTING VALVE BOXES WITHIN PROPERTY. LOWER OR RAISE VALVE BOXES AS NEEDED. CAP PIPE AND WIRE SPLICE VALVES NO LONGER NEEDED.THERE APPEAR TO BE 8 LAWN VALVES AND DRIP VALVES ON THE HOA SYSTEM.



THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF CIVIL SOLUTIONS GROUP, INC, AN SHALL NOT BE PHOTOCOPIED, RE-DRAWN, OR USED ON ANY OTHER PROJECT OTHER THAN THE PROJECT SPECIFICALLY DESIGNED FOR, WITHOUT WRITTEN PERMISSION. THE OWNERS AND ENGINEERS OF CIVIL SOLUTIONS GROUP, INC. DISCLAIM ANY LIABILITY FOR ANY CHANGES OR MODIFICATIONS MADE TO THESE PLANS OR THE DESIGN THEREON WITHOUT THEIR CONSENT. THESE PLANS ARE DRAWN TO SCALE WHEN PLOTTED ON A 24" X 36" SHEET OF PAPER. THESE PLANS ARE PRODUCED IN COLOR AND SHOULD BE PLOTTED AS SUCH.

civilsolutionsgroup inc.
CACHE VALLEY | P: 435.213.3762
SALT LAKE | P: 801.216.3192
UTAH VALLEY | P: 801.874.1432
info@civilsolutionsgroup.net
www.civilsolutionsgroup.net

GODFREY DENTAL OFFICE

340 W & 3200 S
NIBLEY, UT 84321

MARK	DATE:	DESCRIPTION

PROJECT #: 24-256
DRAWN BY: S. B.
REVIEWED BY: J. H.
ISSUED: 09.23.24



IRRIGATION PLAN

L201

LANDSCAPE NOTES & SPECIFICATIONS:

GENERAL NOTES:

1. THE CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING UTILITY LINES PRIOR TO ANY SITE WORK, IRRIGATION AND LANDSCAPE WORK; CONTRACTOR SHALL REPORT ANY CONFLICTS TO THE OWNERS REPRESENTATIVE.
2. THE CONTRACTOR(S) AND SUBCONTRACTORS ARE 100% RESPONSIBLE FOR ANY DAMAGE OCCURRED BY CONTRACTOR/SUBCONTRACTORS TO BUILDINGS, VEHICLES, TREES, SIDEWALKS, CURBS, DRIVES, UTILITIES AND ALL PROPERTY OF THE OWNER. IF ANY DAMAGE OCCURS TO THE OWNER'S BUILDINGS, SITE, LANDSCAPE, AND PROPERTY THE CONTRACTOR MUST REPORT IT IMMEDIATELY AND WORK OUT A SOLUTION WITH OWNER'S REP.
3. TIME IS OF THE ESSENCE AND THE OWNER IS RELYING ON THE LANDSCAPING TO BE COMPLETED IN A PROFESSIONAL AND TIMELY MANNER TO PROMOTE BUSINESS.
4. CONTRACTOR IS TO REVIEW PLANS, VERIFY SITE CONDITIONS AND PLANT QUANTITIES PRIOR TO INSTALLATION. CONFLICTS BETWEEN THE SITE AND THESE PLANS OR WITHIN THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO LANDSCAPE INSTALLATION. ANY DEVIATION FROM THE PLANS OR SPECIFICATIONS MUST HAVE WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE.

PLANTING NOTES:

5. THE PLANTING PLAN IS DIAGRAMMATIC, AND ALL PLANT LOCATIONS ARE APPROXIMATE. IF NECESSARY ADJUST PLANTING LOCATION TO ACCOMMODATE UTILITIES AND OTHER UN-FORESEEN OBSTACLES.
6. PLANT SYMBOLS TAKE PRECEDENCE OVER PLANT QUANTITIES SPECIFIED ON PLANT SCHEDULE.
7. THE CONTRACTOR SHALL VERIFY PLANT QUANTITIES AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN QUANTITIES AND SYMBOLS SHOWN.
8. ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT, SOLAR NEEDS, WATER NEEDS, AND CULTURE ONLY AS APPROVED BY THE OWNER'S REP.
9. PRIOR TO PLANTING, THE IRRIGATION SYSTEM SHALL BE FULLY OPERATIONAL AND ALL PLANTING AREAS SHALL BE MOISTENED BEFORE PLANTINGS.
10. ALL GRASS SEED AREAS SHALL RECEIVE A MINIMUM OF SIX (6) INCHES OF IMPORTED TOPSOIL AND TEN (10) INCHES IN PLANTING BEDS. ALL TOPSOIL USED ON THIS PROJECT SHALL MEET THE FOLLOWING CRITERIA:
    - 10.1. pH: 5.5 - 8.0
    - 10.2. MINIMUM 1% PERCENT ORGANIC MATTER)
    - 10.3. TEXTURE (PARTICLE SIZE PER USDA SOIL CLASSIFICATION): SAND: <70%, CLAY: <30%
    - 10.4. SILT: = BALANCE
    - 10.5. STONE FRAGMENTS (GRAVELS OR ANY SOIL PARTICLE GREATER THAN 2 MM IN SIZE): <5% (BY VOLUME)
11. IN ADDITION, THE SOIL SHALL BE FERTILE, FRIABLE, NATURAL LOAM AND SHALL BE CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL BE FREE OF STONES, LUMPS, CLODS OF HARD EARTH, PLANTS OR THEIR ROOTS, STICKS AND OTHER EXTRANEOUS MATTER. THE SOIL SHALL CONTAIN NO NOXIOUS WEEDS NOR THEIR SEEDS. IT SHALL NOT BE USED FOR PLANTING OPERATIONS WHILE IN A FROZEN OR MUDDY CONDITION.
12. THE FOLLOWING PROCEDURES SHALL BE FOLLOWED IN PLACING ALL TOPSOIL:
    - 12.1. SUB-GRADE MATERIAL SHALL BE ROUGH GRADED TO PLUS OR MINUS 0.1 FEET OF A FINAL ROUGH GRADE WHICH WILL ALLOW THE CONTRACTOR TO ACHIEVE FINAL FINISH GRADE THROUGH THE INSTALLATION OF IMPORTED TOPSOIL.
    - 12.2. SCARIFY SURFACE OF SUB-GRADE TO A TWO (2) INCH DEPTH TO PROVIDE TRANSITION ZONE BETWEEN SUB-GRADE AND TOPSOIL. PLACE TOPSOIL ON SUB-GRADE AND FINE GRADE TO FINAL FINISH GRADE AND TOPSOIL DEPTHS AS INDICATED ON THE DRAWINGS AND IN THESE NOTES.
    - 12.3. FINISH GRADE TO BE 1" BELOW TOP OF CURB OR WALK FOR TURF AREAS, 2" FOR PLANTER BEDS.
    - 12.4. LANDSCAPE CONTRACTOR SHALL MAINTAIN A MINIMUM 3% DRAINAGE AWAY FROM ALL BUILDINGS, STRUCTURES, AND WALLS. FINISHED GRADES SHALL BE SMOOTHED TO ELIMINATE STANDING WATER, UNLESS SPECIFIED ON GRADING PLAN (SEE CIVIL SET).
    - 12.5. ALL FINISHED GRADES SHALL BE APPROVED BY THE OWNER/OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION OF ANY PLANT MATERIALS.
13. CONTRACTOR SHALL HAVE THE OWNER'S REP. APPROVE PLANT MATERIAL SIZE AND QUALITY PRIOR TO INSTALLATION. ANY PLANTS WHICH ARE NOT TRUE TO FORM, APPEAR STRESSED OR UNHEALTHY, INFESTED WITH PESTS, OR UNDERSIZED FOR THEIR CONTAINERS SHALL BE REJECTED.
14. PLANT MATERIAL SHALL NOT BE ROOT BOUND. THREE (3) GALLON PLANTS AND LARGER SHALL HAVE BEEN GROWN IN CONTAINERS FOR A MINIMUM OF SIX (6) MONTHS UP TO A MAXIMUM OF TWO (2) YEARS. PLANTS SHALL EXHIBIT HEALTHY GROWTH AND BE FREE OF DISEASES AND PESTS. BARE ROOT MAY BE USED WHEN APPROVED BY OWNER'S REP.
15. PLANTS SHALL NOT BE PLACED WITHIN TWELVE (12) INCHES OF SPRINKLER HEADS.
16. TREES SHALL BE PLACED NO CLOSER THAN TEN (10) FEET FROM FIRE HYDRANTS. WHERE CITY CODE DEMANDS A GREATER DISTANCE, CITY CODE SHALL TAKE PRECEDENCE.
17. PLANTING PROCEDURES FOR ALL PLANT MATERIALS, ESPECIALLY TREES, SHALL BE AS FOLLOWS:
    - 17.1. DIG PLANTING HOLE THREE (3) TIMES THE WIDTH OF THE ROOT BALL, AND SAME DEPTH AS THE ROOT BALL DEPTH. SIDES OF HOLE SHOULD BE ROUGHENED AND NOT SMOOTH OR SCULPTED.
    - 17.2. FOR CONTAINER PLANTS, REMOVE CONTAINER AND PLACE ROOT BALL IN CENTER OF HOLE, WITH ROOT BALL RESTING ON UNDISTURBED SOIL. ROOT CROWN OR COLLAR SHALL BE AT OR JUST ABOVE FINISHED GRADE.
    - 17.3. FOR BALLED AND BURLAP PLANTS, PLACE ROOT BALL IN CENTER OF HOLE AND RESTING ON UNDISTURBED GROUND. CUT AND REMOVE WIRE BASKET AND BURLAP OR OTHER WRAPPING MATERIAL FROM ROOT BALL THIS MAY BE DONE WITH ROOT BALL IN HOLE. BURLAP OR WIRE PIECES UNDERNEATH THE ROOT BALL MAY BE LEFT IF THEY CANINOT BE REMOVED. DO NOT FOLD BURLAP OVER, BUT CUT AWAY AS MUCH AS POSSIBLE WITHOUT DISTURBING ROOT BALL. BACKFILL BOTTOM THIRD (1/3) OF HOLE AS WIRE AND BURLAP ARE REMOVED.
    - 17.4. PLACE PLANT IN THE HOLE AND BACKFILL TO HALFWAY POINT AND PLACE AGRIFORM PLANTING TABLETS IN THE HOLE ABOUT 1-2 INCHES AWAY FROM THE ROOT TIPS. DO NOT PLACE TABLETS IN THE BOTTOM OF THE PLANTING HOLE. SEE DETAIL AND CHART FOR SUGGESTED APPLICATION RATES.
    - 17.5. FINISH FILLING THE HOLE AROUND THE PLANT TO GRADE LEVEL.
    - 17.6. THOROUGHLY WATER PLANT, THEN COMPLETE BACKFILLING THE HOLE. FORM A WATERING BASIN AROUND THE PLANT AND THOROUGHLY WATER AGAIN.
18. MONITOR ALL PLANTS TO INSURE THAT NO SETTLING OCCURS.
19. THE LANDSCAPE CONTRACTOR SHALL LEAVE SITE IN A CLEAN CONDITION, REMOVING ALL UNUSED MATERIAL, TRASH AND TOOLS.
20. AT SUBSTANTIAL COMPLETION OF ALL WORK OUTLINED IN THESE PLANS, THE LANDSCAPE CONTRACTOR SHALL CONTACT OWNER AND ARRANGE FOR A WALK THROUGH. SUBSTANTIAL COMPLETION SHALL BE DEFINED AS COMPLETION OF ALL WORK OUTLINED IN THE PLANS AND SPECIFICATIONS WITH THE EXCEPTION OF FINAL CLEAN UP AND DEMOBILIZATION. WORK MUST BE FULLY COMPLETED ACCORDING TO ALL PLANS, NOTES, AND SPECIFICATIONS AND EXHIBIT PROFESSIONAL WORKMANSHIP. A MAINTENANCE PERIOD WILL BEGIN ON THE DATE OF ACCEPTANCE OF SUBSTANTIAL COMPLETION BY OWNER.
21. LANDSCAPE CONTRACTOR TO PROVIDE DETAILED AS BUILT DRAWINGS TO OWNERS REPRESENTATIVE UPON COMPLETION OF LANDSCAPE PLANTING. THE DRAWING TO SHOW LOCATION OF: BUILDING, HARDSCAPES, AND ALL PLANT MATERIAL (TREES, SHRUBS, GRASSES, PERENNIALS AND OTHERS). THE AS-BUILT DRAWINGS MUST USE THE BOTANIC NAMES OF SPECIES INSTALLED. THE CONTRACTOR MUST REVIEW THE AS-BUILT DRAWINGS WITH OWNERS REPRESENTATIVE PRIOR TO COMPLETION OF PROJECT.
22. LANDSCAPE CONTRACTOR SHALL MAINTAIN ALL PLANTINGS UNTIL PROJECT COMPLETION AS DETERMINED BY THE OWNER'S REP. TURF SHALL BE CONSIDERED FULLY ESTABLISHED WHEN GRASS STANDS COME IN UNIFORM AND THICK, WITH NO BARE OR THIN SPOTS, AND ROOTS HAVE BEGUN TO SPREAD AND KNIT TOGETHER. NO WEEDS SHALL BE ALLOWED IN THE GRASS. THE MAINTENANCE WORK REQUIRED SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
    - 22.1. DAILY WATERING OF ALL PLANT MATERIAL.
    - 22.2. WEEDING AND REMOVAL OF ALL WEEDS FROM GROUND COVER AND PLANTING AREAS.
    - 22.3. REPLACEMENT OF ANY DEAD, DYING, OR DAMAGED TREES, SHRUBS OR GROUNDCOVER.
    - 22.4. FILLING AND REPLANTING OF ANY LOW AREAS WHICH MAY CAUSE STANDING WATER.
    - 22.5. ADJUSTING OF SPRINKLER HEAD HEIGHTS AND WATERING PATTERNS.
    - 22.6. FILLING AND RE-COMPACTION OF ERODED AREAS, ALONG WITH ANY REQUIRED RE-SEEDING AND/OR RE-PLANTING
    - 22.7. GRASS SHALL BE MOWED WHEN BLADES REACH THREE (3) INCHES TALL. NO MORE THAN ONE THIRD (1/3) OF THE BLADE SHALL BE REMOVED PER CUTTING. CUTTING FREQUENCY SHALL BE ONCE EVERY FIVE (5) TO SEVEN (7) DAYS.
    - 22.8. WEEKLY REMOVAL OF ALL TRASH, LITTER, CLIPPINGS AND ALL FOREIGN DEBRIS.
23. CONTRACTOR TO FERTILIZE TREES, SHRUBS, PERENNIALS AND GRASSES WITH MILLERS A TO Z MIX ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
24. PLANT QUALITY AT OR BELOW THE SOIL LINE:
    - 24.1. A MINIMUM OF THREE STRUCTURAL ROOTS REASONABLY DISTRIBUTED AROUND THE TRUNK SHALL BE FOUND IN EACH PLANT. PLANTS WITH STRUCTURAL ROOTS ON ONLY ONE SIDE OF THE TRUNK (J ROOTS) SHALL BE REJECTED.
    - 24.2. THE ROOT CROWN MUST NOT BE MORE THAN TWO INCHES BELOW THE SOIL LINE. THE TOP TWO STRUCTURAL ROOTS SHALL BE NO MORE THAN TREE INCHES BELOW THE SOIL LINE WHEN MEASURED FOUR INCHES RADIAL TO THE TRUNK. THE TOP OF THE OTHER STRUCTURAL ROOT SHALL BE NO GREATER THAN FIVE INCHES BELOW THE SOIL LINE WHEN MEASURED FOUR INCHES RADIAL TO THE TRUNK. THE GROWER MAY REQUEST A MODIFICATION TO THIS REQUIREMENT FOR SPECIES WITH ROOTS THAT RAPIDLY DESCEND, PROVIDED THAT THE GROWER REMOVES ALL CIRCLING ROOTS ABOVE THE STRUCTURAL ROOTS ACROSS THE TOP OF THE STRUCTURAL ROOTS.
    - 24.3. THE ROOT SYSTEM SHALL BE REASONABLY FREE OF ROOT DEFECTS INCLUDING POTENTIALLY STEM-GIRDLING ROOTS ABOVE THE ROOT COLLAR AND MAIN STRUCTURAL ROOTS, VERTICAL ROOTS, AND/OR KINKED ROOTS FROM NURSERY PRODUCTION PRACTICES, INCLUDING ROOTS ON THE INTERIOR OF THE ROOT BALL.
    - 24.3.1. REASONABLE AND REASONABLY - WHEN USED IN THIS SPECIFICATION RELATIVE TO PLANT QUALITY - ARE INTENDED TO MEAN THAT THE CONDITIONS CITED WILL NOT AFFECT THE ESTABLISHMENT OR LONG-TERM STABILITY, HEALTH, OR GROWTH OF THE PLANT. THIS SPECIFICATION RECOGNIZES THAT IT IS NOT POSSIBLE TO PRODUCE PLANTS FREE OF ALL DEFECTS AND THAT SOME DECISIONS CANNOT BE TOTALLY BASED ON MEASURED FINDINGS, SO PROFESSIONAL JUDGEMENT IS REQUIRED. IN CASES OF DIFFERING OPINION, THE LANDSCAPE ARCHITECT SHALL DETE4RMINE WHEN CONDITIONS WITHIN THE PLANT ARE JUDGED AS REASONABLE.
    - 24.3.2. THE FINAL PLANT GROWER SHALL BE RESPONSIBLE FOR CERTIFYING THAT THE PLANTS HAVE BEEN ROOT PRUNED AT EACH STEP IN THE PLANT PRODUCTION PROCESS TO REMOVE STEM-GIRDLING ROOTS AND KINKED ROOTS, OR SHALL ENSURE THAT THE PREVIOUS LINER PRODUCTION SYSTEM USED OTHER PRACTICES THAT PRODUCE A ROOT SYSTEM THROUGHOUT THE ROOT BALL THAT MEETS THESE SPECIFICATIONS. REGARDLESS OF THE WORK OF PREVIOUS GROWERS, THE PLANT'S ROOT SYSTEM SHALL BE MODIFIED AT THE FINAL PRODUCTIONS STAGE TO PRODUCE THE REQUIRED PLANT ROOT QUALITY. THE FINAL GROWER SHALL CERTIFY IN WRITING THAT ALL PLANTS ARE REASONABLY FREE OF ROOT DEFECTS AS DEFINED IN THIS SPECIFICATION AND THAT THE TREE HAS BEEN GROWN AND HARVESTED TO PRODUCE A PLANT THAT MEETS THESE SPECIFICATIONS.
    - 24.4. ALL PLANTS MAY BE INSPECTED AT THE SUPPLIER'S NURSERY. THE LANDSCAPE ARCHITECT MAY MAKE INVASIVE INSPECTION OF THE ROOT BALL AS NEEDED TO VERIFY THAT PLANTS MEET THE REQUIREMENTS. INSPECTIONS OF CONTAINER TREES MAY REQUIRE RANDOM CUTTING INTO THE INTERIOR ROOT BALL OF UP TO 2 PERCENT BUT NOT FEWER THAN TWO TREES OF EACH TYPE OF TREE IN A CONTAINER AT EACH SOURCE NURSERY. SUCH CUTTING AND INSPECTION MAY RENDER THE CONTAINER TREE UNSUITABLE FOR PLANTING. FINDINGS OF THE ROOT INSPECTIONS SHALL BE CONSIDERED AS REPRESENTATIVE OF ALL TREES OF THAT TYPE FROM THAT SOURCE.
    - 24.5. CONTAINER-GROWN PLANTS, IN ADDITION TO THE ABOVE REQUIREMENTS, SHOULD COMPLY WITH THE FOLLOWING:
        - 24.5.1.1. CONTAINER-GROWN PLANTS MAY BE PERMITTED ONLY WHEN INDICATED ON THE DRAWING OR THIS SPECIFICATION.
        - 24.5.2. CONTAINER-GROWN STOCK SHALL HAVE BEEN GROWN IN A CONTAINER LONG ENOUGH FOR THE ROOT SYSTEM TO HAVE DEVELOPED
    - 24.6. SUFFICIENTLY TO HOLD ITS POTTING MEDIUM TOGETHER BUT NOT SO LONG AS TO HAVE DEVELOPED ROOTS THAT ARE MATTED OR CIRCLING AROUND THE EDGE OR INTERIOR OF THE ROOT MASS. PLANTS SHALL HAVE BEEN ROOT PRUNED AT EACH CHANGE IN CONTAINER SIZE.
    - 24.6.1. PLANTS THAT FAIL TO MEET ANY OF THE ABOVE REQUIREMENTS SHALL BE MODIFIED TO CORRECT DEFICIENCIES IF APPROVED BY THE LANDSCAPE ARCHITECT. MODIFICATION SHALL INCLUDE THE FOLLOWING:
        - 24.6.1.1. SHAVING ALL CIRCLING ROOTS ON THE EXTERIOR OF THE ROOT MASS DEEP ENOUGH SO THAT ALL CUT ROOTS ENDS ARE ROUGHLY RADIAL TO THE TRUNK.
        - 24.6.1.2. REMOVAL OF ALL ROOTS ABOVE THE TOP OF THE MAIN STRUCTURAL ROOTS AND TRUNK FLARE INCLUDE ANY ROOTS THAT ARE IMPRINTS FROM PREVIOUS SMALLER CONTAINERS.
        (THE ABOVE MODIFICATIONS SHALL NOT BE CAUSE TO ALTER THE WARRANTY PROVISIONS OF THIS SPECIFICATION.)

TREE STAKING:

31. LANDSCAPE CONTRACTOR TO PROVIDE BID TO STAKE UP TO 50% OF TREES.
32. THE OWNER/OWNERS REPRESENTATIVE SHALL HAVE THE AUTHORITY TO REQUIRE THAT TREES ARE STAKED OR TO REJECT STAKING AS AN ALTERNATIVE WAY TO STABILIZE THE TREE.
33. TREES THAT REQUIRE HEAVILY MODIFIED ROOT BALLS TO MEET THE ROOT QUALITY STANDARDS MAY BECOME UNSTABLE. THE OWNER/OWNERS REP MAY CHOOSE TO REJECT THESE TREES RATHER THAN UTILIZE STAKING TO TEMPORARILY SUPPORT THE TREE.
34. STAKES SHALL BE LODGE POLE STAKES FREE OF KNOTS AND OF DIAMETERS AND LENGTHS APPROPRIATE TO THE SIZE OF PLANT AS REQUIRED TO ADEQUATELY SUPPORT THE PLANT.
35. PLANTS SHALL STAND PLUMB AFTER STAKING

REMOVE TREE STAKING AFTER THE FIRST FULL GROWING SEASON UNLESS DIRECTED BY THE OWNER/OWNERS REP.

MULCH:

36. ALL PLANTER BEDS ARE TO RECEIVE MULCH ACCORDING TO PLANS. SEE PLANS FOR TYPE AND DEPTH.
37. PRIOR TO PLACEMENT OF WEED FABRIC, TREAT AREAS WITH PRE–EMERGENT
38. HERBICIDE ACCORDING TO MANUFACTURERS RECOMMENDATIONS.

WEED FABRIC:

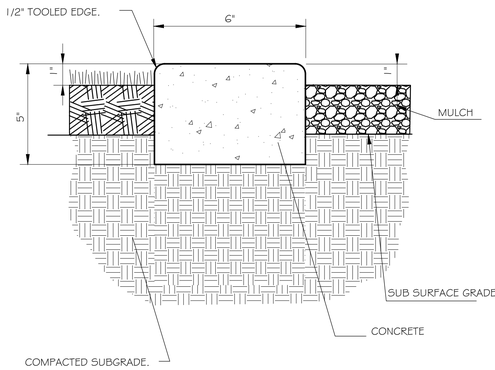
39. AREAS TO RECEIVE WEED BARRIER FABRIC INCLUDE PLANTER BEDS AND GRAVEL AREA. CONTRACTOR TO INSTALL DEWITT PRO 5 WEED FABRIC. CONTRACTOR TO INSTALL WEED BARRIER PER MANUFACTURERS RECOMMENDATIONS INCLUDING THE USE OF STAPLES AS OFTEN AS RECOMMENDED.

EDGING:

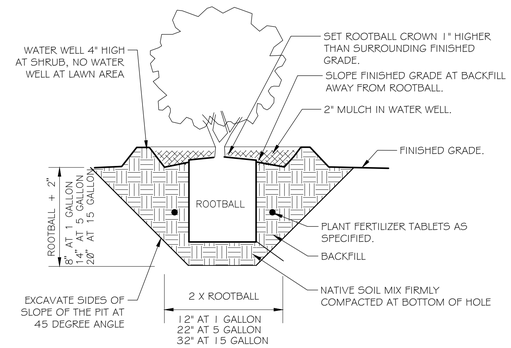
40. WHERE A PLANTER BED ABUTS A GRASS SEED AREA OR GRAVEL CONTRACTOR SHALL INSTALL 6" DURA-EDGE BLACK METAL EDGING.

MAINTENANCE & WARRANTIES:

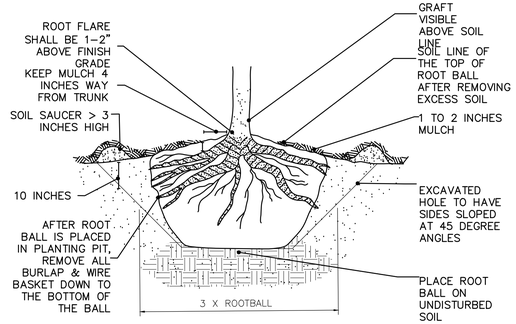
41. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF THE TREES, PLANTER BEDS (INCLUDING WEEDING), SHRUB PRUNING, WATERING THE PLANTS AND IRRIGATION SYSTEM FOR THE DURATION OF THE CONSTRUCTION PERIOD.
42. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF LANDSCAPE FOR 90 DAYS PAST THE FINAL INSPECTION. THE MAINTENANCE IS TO INCLUDE: WEEDING PLANTER BED AREAS, SPRAYING THE SOD AREAS FOR WEEDS AND FERTILIZATION (1 APPLICATION AFTER INITIAL APPLICATION), MOWING, TRIMMING, AND IRRIGATION REPAIRS.
43. ALL SHRUBS AND GROUND COVERS SHALL BE GUARANTEED BY THE CONTRACTOR AS TO GROWTH AND HEALTH FOR A PERIOD OF ONE (1) YEAR AFTER COMPLETION OF THE MAINTENANCE PERIOD AND FINAL ACCEPTANCE. ALL TREES SHALL BE GUARANTEED BY THE CONTRACTOR TO LIVE AND GROW IN AN ACCEPTABLE UPRIGHT POSITION FOR A PERIOD OF ONE (1) YEAR AFTER COMPLETION OF THE SPECIFIED MAINTENANCE PERIOD AND FINAL ACCEPTANCE.
44. THE ONLY CONDITIONS WHICH RELIEVE THE CONTRACTOR FROM THE GUARANTEE OF PLANT MATERIALS AS DESCRIBED ABOVE ARE THOSE WHICH CAN BE SHOWN ARE A DIRECT RESULT OF IMPROPER CARE OR WATERING BY THE OWNER AFTER THE MAINTENANCE PERIOD AND DURING THE GUARANTEE PERIOD.
45. THE CONTRACTOR , WITHIN FIFTEEN (15) DAYS AFTER RECEIVING WRITTEN NOTIFICATION BY THE OWNERS REP., SHALL REMOVE AND REPLACE ALL GUARANTEED PLANT MATERIALS WHICH FAIL TO MEET THE REQUIREMENTS OF THE GUARANTEE. REPLACEMENT SHALL BE MADE WITH PLANT MATERIALS AS INDICATED OR SPECIFIED ON THE ORIGINAL PLANS, AND ALL SUCH REPLACEMENT MATERIALS SHALL BE GUARANTEED AS SPECIFIED FOR THE ORIGINAL MATERIALS.



1 6"X6" CONCRETE MOW STRIP
NOT TO SCALE 329413.19-21

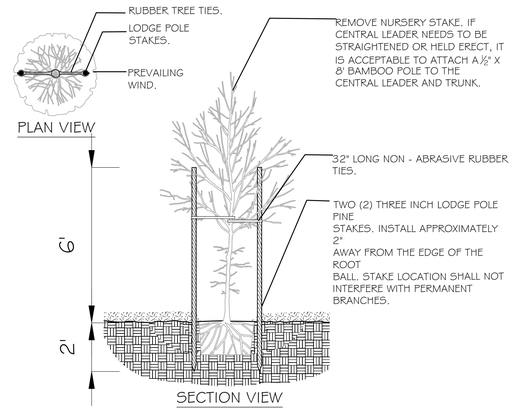


2 SHRUB PLANTING
NOT TO SCALE 329333.13-01



NOTE: TREES PLANTED WITHIN TURF AREAS SHALL BE PLANTED IN A CIRCLE WITH A DIAMETER OF 3 FEET WHERE NO TURF SHALL BE PLANTED. MULCH, SUCH AS SOIL PREP OR OTHER BARK MULCH, SHALL BE INSTALLED IN THIS CIRCLE UP TO FOUR (4) INCHES AWAY FROM THE TREE TRUNK.

3 TYPICAL TREE B&B PLANTING DETAIL
329343-03



4 TREE DOUBLE STAKING
NOT TO SCALE 329343-06

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF CIVIL SOLUTIONS GROUP, INC. AN SHALL NOT BE PHOTOCOPIED, RE-DRAWN, OR USED ON ANY OTHER PROJECT OTHER THAN THE PROJECT SPECIFICALLY DESIGNED FOR, WITHOUT WRITTEN PERMISSION. THE OWNERS AND ENGINEERS OF CIVIL SOLUTIONS GROUP, INC. DISCLAIM ANY LIABILITY FOR ANY CHANGES OR MODIFICATIONS MADE TO THESE PLANS OR THE DESIGN THEREON WITHOUT THEIR CONSENT. THESE PLANS ARE DRAWN TO SCALE WHEN PLOTTED ON A 24" X 36" SHEET OF PAPER. THESE PLANS ARE PRODUCED IN COLOR AND SHOULD BE PLOTTED AS SUCH.

civilsolutionsgroup inc.
CACHE VALLEY | P: 435.213.3762
SALT LAKE | P: 801.216.3192
UTAH VALLEY | P: 801.874.1432
info@civilsolutionsgroup.net
www.civilsolutionsgroup.net

GODFREY DENTAL OFFICE
340 W & 3200 S
NIBLEY, UT 84321

MARK:	DATE:	DESCRIPTION:

PROJECT #: 24-256
DRAWN BY: S. B.
REVIEWED BY: J. H.
ISSUED: 09.23.24

STATE OF UTAH
09.23.24
JACOB A. HENDRICKSON
10110348
LICENSED LANDSCAPE ARCHITECT

DETAILS

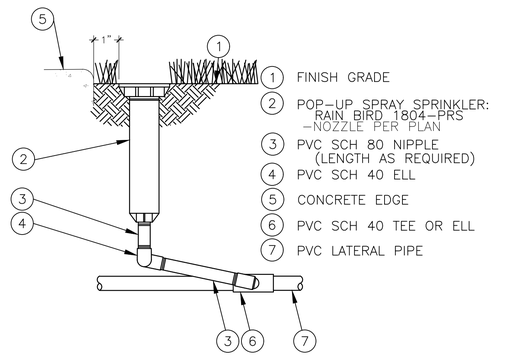
L301

IRRIGATION NOTES & SPECIFICATIONS

1. IRRIGATION PLAN IS DIAGRAMMATIC. ALL IRRIGATION EQUIPMENT SHALL BE LOCATED IN PLANTING AREAS ONLY, UNLESS NOTED OTHERWISE. REFER TO THE IRRIGATION LEGEND, DETAILS, AND SPECIFICATIONS FOR EQUIPMENT AND INSTALLATION; SPECIFICATIONS SHALL TAKE PRECEDENCE OVER INSTALLATION DETAILS.
2. LANDSCAPE CONTRACTOR SHALL VERIFY LOCATION OF IRRIGATION POINT OF CONNECTION (POC) AND THE STATIC WATER PRESSURE AT THAT LOCATION PRIOR TO BEGINNING ANY IRRIGATION WORK. IF THE LOCATION OR WATER PRESSURE IS DIFFERENT THAN THAT EXPRESSED BY THE DRAWINGS, OR IF THE PRESSURE APPEARS TO BE SIGNIFICANTLY HIGHER OR LOWER THAN THE DESIGN PRESSURE, THE CONTRACTOR SHALL CONTACT OWNER REPRESENTATIVE IMMEDIATELY. **THE DESIGN PRESSURE IS 70 PSI.**
3. CONTRACTOR SHALL KEEP THE PREMISES CLEAN AND FREE OF EXCESS EQUIPMENT, MATERIALS AND RUBBISH INCIDENTAL TO WORK OF THIS SECTION.
4. PIPE FITTINGS SHALL BE AS FOLLOWS:
   - 4.1. ALL RISERS AND EXPOSED FITTINGS SHALL BE P.V.C. SCHEDULE 40.
   - 4.2. ALL UNDERGROUND FITTINGS SHALL BE P.V.C. SCHEDULE 40.
5. IRRIGATION CONTROL WIRES SHALL CONFORM TO THE FOLLOWING
   - 5.1. ALL WIRE SHALL BE TYPE UF, 600 VOLT, SOLID COPPER , WIRE SHALL BE DIRECT BURIAL TYPE. GROUND WIRE SHALL BE: 14 GAUGE WHITE. SPARE GROUND WIRE SHALL BE 14 GAUGE BLUE. MULTI-STRAND WIRE SHALL BE 18 GAUGE AND CONTRACTOR SHALL INSTALL 3 SPARES PER CONTROLLER. ALL SPLICES AND CONNECTIONS SHALL BE WATER-TIGHT. ALL WIRES SHALL BE INSTALLED WITH TWO (2) FEET OF EXCESS WIRE (COILED) AT THE END OF EACH WIRE RUN, WIRE SPLICE, AND AT EACH CONTROLLER.
   - 5.2. CONTROL WIRE SHALL BE BUNDLED EVERY 10' AND PLACED ADJACENT TO MAIN LINE. ALL WIRE SPLICES SHALL BE LOCATED IN VALVE BOXES. DO NOT TAPE WIRE TO PIPE.
6. BACK FLOW PREVENTION DEVICES SHALL BE LOCATED AS INDICATED ON THE SCHEDULE. WILKINS 375 RPZ BLACK AND INSTALLED PER MANUFACTURER'S RECOMMENDATION AND LOCAL CODES.
7. MANUAL DRAIN VALVES SHALL BE PLACED ON THE MAIN LINE IN LOW SPOTS. ALL MANUAL DRAINS SHALL BE PLACE IN SEPARATE VALVE BOXES PER INSTALLATION DETAILS.
8. ALL POP-UP SPRAY SPRINKLERS SHALL CONFORM TO THE FOLLOWING UNLESS SPECIFIED IN PLAN:
   - 8.1. SPRINKLERS LOCATED IN GRASS AREAS SHALL BE PER PLAN.
   - 8.2. SPRINKLERS LOCATED IN PLANTING BEDS SHALL BE SIX (6) INCHES IN HEIGHT.
9. ALL PRESSURE MAIN LINES SHALL HAVE MINIMUM TWENTY-FOUR (24) INCHES OF COVER, AND ALL LATERAL LINES SHALL BE HAVE FOURTEEN (14) INCHES OF COVER. TRENCH BEDDING AND BACKFILL MATERIAL SHALL BE EXISTING SITE SOIL FREE OF ROCKS, DEBRIS, ETC. GREATER THAN ONE (1) INCH IN ANY DIMENSION THAT MAY DAMAGE IRRIGATION PIPE OR EQUIPMENT. IN THE EVENT OF BACKFILL SETTLEMENT, CONTRACTOR SHALL PERFORM REQUIRED REPAIRS AT HIS OWN COST.
10. WHERE POSSIBLE, ALL AUTOMATIC CONTROL VALVES SHALL BE LOCATED WITHIN SHRUB AREAS. ALL VALVE BOXES IN PLANTING BEDS ARE TO BE TAN. ALL BOXES WITHIN LAWN TO BE GREEN. THERE SHALL BE ONE VALVE PER BOX, WITH FOUR (4) INCHES OF 3/4" GRAVEL BENEATH THE VALVE. NO VALVE MANIFOLDS SHALL BE ALLOWED. GATE VALVES SHALL BE LOCATED IN SEPARATE VALVE BOXES. WIRE SPLICES SHALL ALSO BE LOCATED IN SEPARATE VALVE BOXES.
11. ALL MAIN LINE AND LATERAL LINES SHALL BE SLEEVED WITH P.V.C. SCHEDULE 40 PIPE . WHERE THEY PASS UNDER PAVED AREAS. SLEEVE SIZE SHALL BE TWICE THE DIAMETER OF THE LINE TO BE SLEEVED UNLESS OTHERWISE NOTED ON THE PLANS. CONTRACTOR SHALL INSTALL A SEPARATE 2" SLEEVE FOR WIRES. VALVE BOXES IN PLANTER BEDS SHALL BE TAN.
12. MAIN LINE SHALL BE INSTALLED IN SAND WITH 6" MINIMUM BELOW AND 6" MINIMUM ABOVE MAIN LINE PIPE.
13. AUTOMATIC CONTROLLERS SHALL BE OF THE SIZE AND TYPE NOTED, AND INSTALLED WHERE INDICATED ON IRRIGATION PLAN. CONTROL WIRES SHALL BE SLEEVED IN ELECTRICAL CONDUIT TO MAINLINE. 120-VOLT ELECTRICAL SERVICE TO CONTROLLERS SHALL BE PROVIDED BY THE LANDSCAPE CONTRACTOR. COORDINATE THIS WORK WITH ELECTRICAL AND OTHER CONTRACTORS FOR THIS PROJECT.
14. PRIOR TO BACKFILLING IRRIGATION TRENCHES:
   - 14.1. ALL MAIN LINES IN THE SYSTEM SHALL BE CAPPED AND PRESSURE TESTED AT 90 P.S.I. FOR A PERIOD OF TWO (2) HOURS. ANY LEAKS FOUND SHALL BE CORRECTED BY REMOVING THE LEAKING PIPE OR FITTINGS AND INSTALLING NEW MATERIAL IN ITS PLACE. REPEAT PRESSURE TEST TO ASSURE ABSENCE OF LEAKS.
   - 14.2. ALL LATERAL LINES SHALL BE PRESSURE TESTED AT DESIGN PRESSURE FOR ONE (1) HOUR. DESIGN PRESSURE FOR THIS PROJECT IS 70 PSI.
   - 14.3. THE CONTRACTOR SHALL NOT ALLOW NOR CAUSE ANY OF HIS WORK TO BE COVERED UNTIL IT HAS BEEN INSPECTED, TESTED AND APPROVED BY THE OWNER/OWNERS AUTHORIZED REPRESENTATIVE.
   - 14.4. WHERE MAIN LINE WILL BE ALLOWED TO SIT UNCOVERED FOR ANY LENGTH OF TIME IN THE TRENCH PRIOR TO TESTING, SHADE MAIN LINE WITH A THIN COVERING OF SOIL TO MINIMIZE WEATHER-RELATED EXPANSION OR CONTRACTION OF PIPE.
15. IRRIGATION CONTRACTOR SHALL ADJUST ALL HEADS TO PROVIDE A UNIFORM COVERAGE AND TO KEEP SPRAY OFF BUILDINGS, SIDEWALKS, WALLS, PARKING AREAS, DRIVES, AND SIGNS
16. WHEN THE SPRINKLER SYSTEM IS COMPLETED THE CONTRACTOR SHALL, IN THE PRESENCE OF THE OWNER/OWNER'S AUTHORIZED REPRESENTATIVE, PERFORM A COVERAGE TEST OF WATER PROVIDED TO THE PLANTING AREAS TO ENSURE IT IS CONSISTENT AND UNIFORM.
17. THE CONTRACTOR SHALL FURNISH TO THE OWNER A COMPLETE "AS BUILT" DRAWING ON PAPER AND DIGITAL FILE SHOWING EXACT LOCATIONS OF VALVES, MAIN LINES, VALVES, BACKFLOW, AUXILIARY EQUIPMENT, ISOLATION VALVES, LATERALS, AND HEADS. ALL VALVES MUST BE LABELED INSIDE THE BOX WITH WATER PROOF LABELS.
18. AT THE TIME OF SUBSTANTIAL COMPLETION (DEFINED AS COMPLETE INSTALLATION AND PROPER FUNCTIONING OF IRRIGATION SYSTEM, INSTALLATION OF ALL PLANT MATERIAL INCLUDING STAKING OF ALL TREES, AND PLACEMENT OF SOIL PREP) THE CONTRACTOR SHALL SCHEDULE A WALK THROUGH WITH OWNER TO REVIEW ALL WORK COMPLETED TO DATE AND GENERATE A PUNCH LIST. AT THIS TIME THE WARRANTY PERIOD OF ONE (1) YEAR BEGINS. AFTER SUBSTANTIAL COMPLETION WALK THROUGH, THE CONTRACTOR HAS THIRTY (30) DAYS TO SATISFY ALL ITEMS ON PUNCH LIST.
19. IRRIGATION CONTRACTOR SHALL GUARANTEE THE ENTIRE IRRIGATION SYSTEM TO BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM FINAL ACCEPTANCE BY THE OWNER.
20. CONTRACTOR TO COORDINATE WITH OWNER'S REP. WHEN BLENDING NEW LANDSCAPE WITH EXISTING LANDSCAPE. THIS WILL ALSO INCLUDE VERIFYING SQUARE FOOTAGE OF GRASS AND IRRIGATION ADJUSTMENTS.
21. LANDSCAPE CONTRACTOR TO COORDINATE WITH OWNERS REP AND GENERAL CONTRACTOR THE WATERING OF TREES AND GRASS TO KEEP PLANTS, GRASS AND TREES ALIVE DURING CONSTRUCTION.
22. ALL PARTS AND EQUIPMENT TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. VALVES INSTALLED MUST HAVE A DOUBLE UNION AND A MINIMUM OF 6" SPACE ON BOTH SIDES OF THE VALVE IN THE VALVE BOX.
23. FOR DRIP IRRIGATION CONTRACTOR MUST PROVIDE ALL PIPING, EMITTERS, PRESSURE REDUCERS PER VALVE, DRAINS, FILTERS AND PARTS NEEDED. ALL TREES GET TWO RAINBIRD DRIPLINE RINGS 1 AT 2' RADIUS AND 1 AT 4' RADIUS. EMITTERS ARE AS FOLLOWS (1) 1 GPH EMITTER PER 1 GALLON PLANT, (1) 2 GPH EMITTER PER 3 OR 5 GALLON SHRUB. ALL 10 GALLON PLANTS RECEIVE 3 (2) GPH EMITTERS.
24. CONTRACTOR MUST PROVIDE THE OWNER WITH AN AS-BUILT IRRIGATION MAP SHOWING LOCATION OF ALL VALVES, MAIN LINE, LATERAL LINES AND AUXILIARY EQUIPMENT.

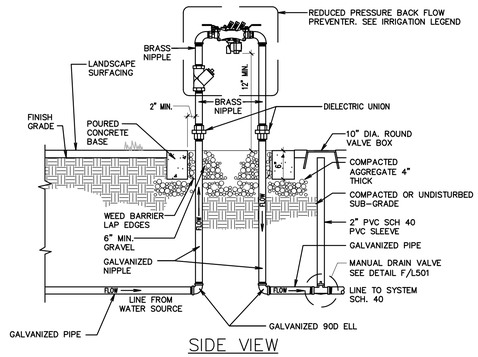
MAINTENANCE AND OPERATIONAL NOTES

25. THE PURPOSE OF THIS SPRINKLER SYSTEM IS TO PROVIDE ONLY SUFFICIENT WATER TO MAINTAIN PLANT LIFE DURING DRY WEATHER CONDITIONS OR SUMMER SEASONS. TIME CLOCKS SHALL BE READJUSTED CONTINUOUSLY THROUGHOUT THE SEASON, ON A WEEKLY BASIS IF NECESSARY, TO PROVIDE WATER ONLY WHEN THE SOIL IS DRY AT A DEPTH OF FOUR (4) INCHES THE FIRST INITIAL GROWING SEASON AND SIX (6) INCHES THE FOLLOWING YEARS. IF THE GROUND IS MOIST EITHER AT THE SURFACE OR A DEPTH OF FOUR (4) INCHES DURING THE FIRST YEAR AFTER INITIAL PLANT ESTABLISHMENT OR IS MOIST AT A DEPTH OF SIX (6) INCHES THEREAFTER, SHUT THE TIME CLOCKS OFF AND DO NOT APPLY ADDITIONAL WATER UNTIL SOIL HAS BEEN ALLOWED TO DRY. READJUST TIME CLOCK PRIOR TO TURNING VALVES BACK ON. IF RAIN IS FORECAST OR IS EMINENT, ALL IRRIGATION SYSTEMS SHALL BE SHUT OFF AND NOT REACTIVATED UNTIL THE SOIL HAS DRIED TO THE ABOVE DEPTHS.
26. IF ANY SUBSURFACE DRAINAGE OR RUN-OFF IS VISIBLE AT LOW AREAS, ACROSS SIDEWALKS OR AT LOWER PORTIONS OF SLOPES, IMMEDIATELY SHUT THE VALVES OFF TO ALLOW THE AREA TO COMPLETELY DRY OUT. IF THIS CONDITION CONTINUES AFTER SUBSEQUENT WATERINGS THE CONTRACTOR SHALL NOTIFY THE OWNER'S REP.
27. INSPECTIONS OF IRRIGATION SYSTEM SHALL BE MADE ON A DAILY BASIS TO OBSERVE AND PROVIDE REPAIRS OR REMEDIES TO THE FOLLOWING UNACCEPTABLE PROBLEMS:
   - 27.1. OVER-SPRAY ON SIDEWALKS, STREETS, PAVED AREAS, PARKING AREAS, FENCES, WALLS, SIGNS, BUILDINGS OR STRUCTURES.
   - 27.2. DRAINAGE OR RUN-OFF ACROSS SIDEWALKS, PAVING OR STREETS.
   - 27.3. DAMAGED OR IMPROPERLY OPERATING HEADS, PIPING, VALVES, CONTROLLERS OR OTHER IRRIGATION EQUIPMENT.
28. CONTRACTOR TO PROVIDE 2 HOURS OF TRAINING TO OWNER AT END OF PROJECT REGARDING OPERATION FOR IRRIGATION SYSTEM. CONTRACTOR WILL SHOW OWNER HOW TO OPERATE THE FOLLOWING: STOP AND WASTE VALVE, BACKFLOW VALVE, CONTROLLER, AND REMOTE CONTROL VALVES.

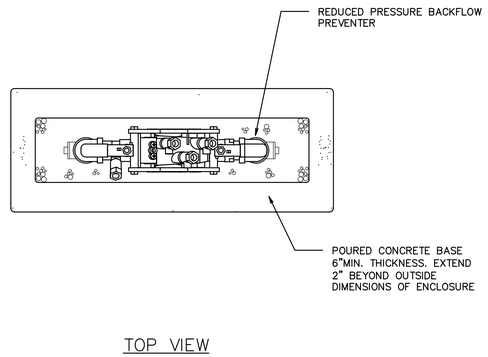


1 RAINBIRD 1804 NOZZLE PER PLAN

NOT TO SCALE 328403.13-07



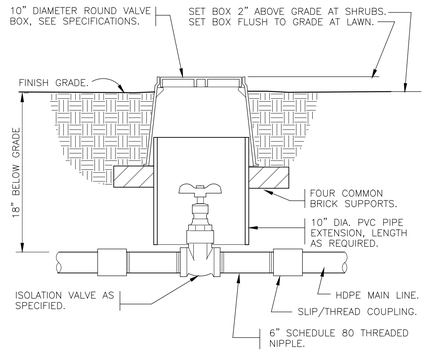
SIDE VIEW



TOP VIEW

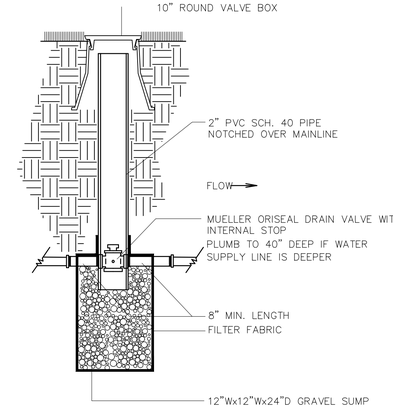
2 WILKINS-ZURN 375 RPZ

NOT TO SCALE 328409.43-06



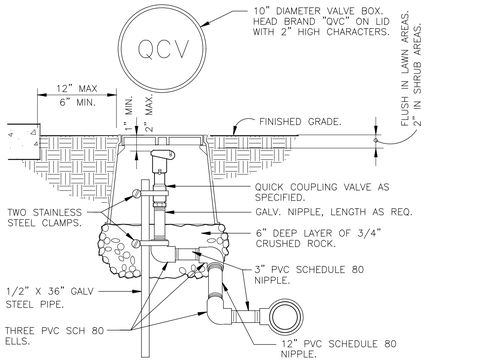
3 BRASS ISOLATION VALVE

1 1/2" = 1'-0" 328406.33-01



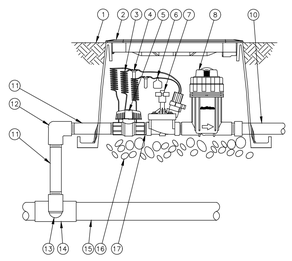
4 STOP AND WASTE VALVE

NOT TO SCALE 328406-03



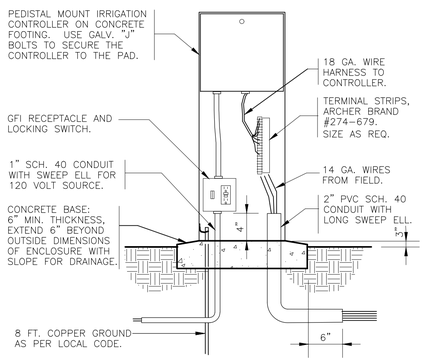
5 QUICK COUPLING VALVE IN BOX

1 1/2" = 1'-0" 328406.43-02



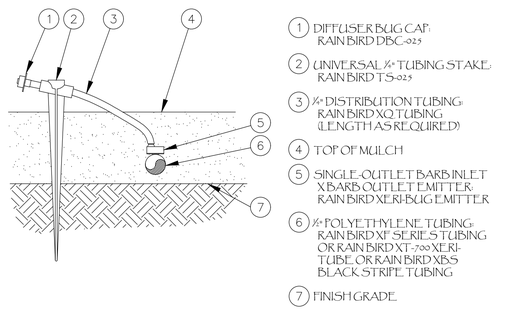
6 RAINBIRD XCZ-PRB 100 VALVE

328413.76-30



7 PEDESTAL MOUNT CONTROLLER

1" = 1'-0" 32 8409.16-06



NOTES:
1. USE RAIN BIRD XERIMAN TOOL XM-TOOL TO INSERT EMITTER DIRECTLY INTO 1/4" POLYETHYLENE TUBING.
2. RAIN BIRD XERI-BUG BARB X BARB EMITTERS ARE AVAILABLE IN THE FOLLOWING MODELS:
   XB-05PC 0.5 GPH XB-10PC 1.0 GPH XB-20PC 2.0 GPH
3. MINIMUM 2 EMITTERS PER PLANT
4. FOR FURTHER INFORMATION SEE IRRIGATION NOTES
5. SEE 3/L503 FOR TREE DRIP IRRIGATION.

8 RAINBIRD XERI-BUG EMITTER

NOT TO SCALE 328403.13-07

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF CIVIL SOLUTIONS GROUP, INC. AN SHALL NOT BE PHOTOCOPIED, RE-DRAWN, OR USED ON ANY OTHER PROJECT OTHER THAN THE PROJECT SPECIFICALLY DESIGNED FOR, WITHOUT WRITTEN PERMISSION. THE OWNERS AND ENGINEERS OF CIVIL SOLUTIONS GROUP, INC. DISCLAIM ANY LIABILITY FOR ANY CHANGES OR MODIFICATIONS MADE TO THESE PLANS OR THE DESIGN THEREON WITHOUT THEIR CONSENT. THESE PLANS ARE DRAWN TO SCALE WHEN PLOTTED ON A 24" X 36" SHEET OF PAPER. THESE PLANS ARE PRODUCED IN COLOR AND SHOULD BE PLOTTED AS SUCH.

civilsolutionsgroup inc.
CACHE VALLEY | P: 435.213.3762
SALT LAKE | P: 801.216.3192
UTAH VALLEY | P: 801.874.1432
info@civilsolutionsgroup.net
www.civilsolutionsgroup.net

GODFREY DENTAL OFFICE
340 W & 3200 S
NIBLEY, UT 84321

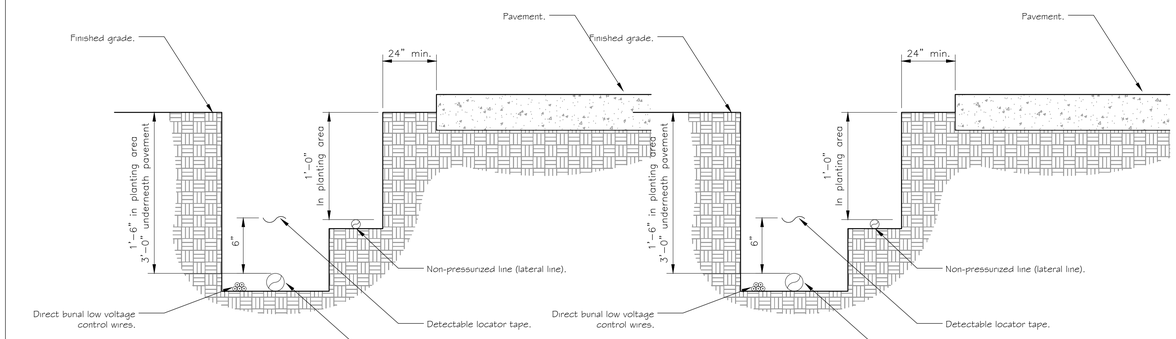
MARK	DATE	DESCRIPTION

PROJECT #: 24-256
DRAWN BY: S. B.
REVIEWED BY: J. H.
ISSUED: 09.23.24

STATE OF UTAH
JACOB B. HENDRICKSON
10110348
LICENSED LANDSCAPE ARCHITECT

DETAILS

L302



NOTES:
1- See irrigation legend for mainline and lateral line pipe size and type.
2- Direct bunal control wires shall be installed in Sch. 40 PVC electrical conduit if required.
3- 2-wire irrigation wire shall be installed in Sch. 40 PVC electrical conduit.
4- Detectable locator tape shall be located six inches (6") above the entire mainline run.

1 IRRIGATION TRENCHING

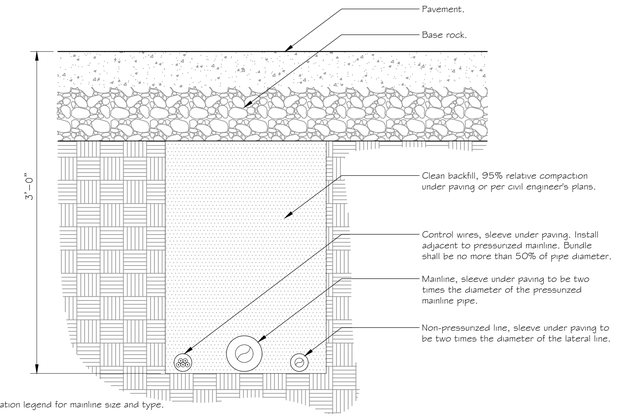
1 1/2" = 1'-0" FX-IR-FX-AUXEQ-08

NOTES:
1- See irrigation legend for mainline and lateral line pipe size and type.
2- Direct bunal control wires shall be installed in Sch. 40 PVC electrical conduit if required.
3- 2-wire irrigation wire shall be installed in Sch. 40 PVC electrical conduit.
4- Detectable locator tape shall be located six inches (6") above the entire mainline run.

URBAN TREE FOUNDATION © 2014
OPEN SOURCE FREE TO USE

2 IRRIGATION TRENCHING

1 1/2" = 1'-0" FX-IR-FX-AUXEQ-08



Notes:
1- See irrigation legend for mainline size and type.
2- All sleeves shall be Sch. 40 PVC pipe.
3- All sleeves shall extend 12" beyond the edge of pavement.
4- End of sleeves shall be located with a wooden stake or PVC pipe. Locators shall run continuously from the end of the sleeve to finished grade.

URBAN TREE FOUNDATION © 2014
OPEN SOURCE FREE TO USE

3 PIPE BENEATH PAVEMENT

NOT TO SCALE FX-IR-FX-AUXEQ-05

4 POP-UP SPRAY HEAD

NOT TO SCALE P-CO-SLC-23

1. 30-INCH LINEAR LENGTH OF WIRE, COILED
2. WATERPROOF CONNECTION RAIN BIRD SPLICE-1 (1 OF 2)
3. ID TAG: RAIN BIRD VID SERIES
4. REMOTE CONTROL VALVE: RAIN BIRD PEB
5. VALVE BOX WITH COVER: RAIN BIRD VB-STD
6. FINISH GRADE/TOP OF MULCH
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL
9. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
10. BRICK (1 OF 4)
11. PVC MAINLINE PIPE
12. SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND SCH 40 ELL
13. PVC SCH 40 TEE OR ELL
14. PVC SCH 40 MALE ADAPTER
15. PVC LATERAL PIPE
16. 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

5 RAINBIRD PEB PLASTIC VALVE

328406.13-08

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF CIVIL SOLUTIONS GROUP, INC, AN SHALL NOT BE PHOTOCOPIED, RE-DRAWN, OR USED ON ANY OTHER PROJECT OTHER THAN THE PROJECT SPECIFICALLY DESIGNED FOR, WITHOUT WRITTEN PERMISSION. THE OWNERS AND ENGINEERS OF CIVIL SOLUTIONS GROUP, INC. DISCLAIM ANY LIABILITY FOR ANY CHANGES OR MODIFICATIONS MADE TO THESE PLANS OR THE DESIGN THEREON WITHOUT THEIR CONSENT. THESE PLANS ARE DRAWN TO SCALE WHEN PLOTTED ON A 24" X 36" SHEET OF PAPER. THESE PLANS ARE PRODUCED IN COLOR AND SHOULD BE PLOTTED AS SUCH.

civilsolutionsgroup inc.
CACHE VALLEY | P: 435.213.3762
SALT LAKE | P: 801.216.3192
UTAH VALLEY | P: 801.874.1432
info@civilsolutionsgroup.net
www.civilsolutionsgroup.net

GODFREY DENTAL OFFICE
340 W & 3200 S
NIBLEY, UT 84321

MARK:	DATE:	DESCRIPTION:

PROJECT #: 24-256
DRAWN BY: S. B.
REVIEWED BY: J. H.
ISSUED: 09.23.24

STATE OF UTAH
09.23.24
JACOB A. HENDRICKSON
10110348
LICENSED LANDSCAPE ARCHITECT

DETAILS

L303

P:\2024\24-256 Ironwood Ridgeline Commercial\Landscape\01_AutoCAD Drawings\24-256 DET

GODFREY DENTAL OFFICE
CONSTRUCTION DRAWINGS

1/17/2025

VICINITY MAP
NTS



Sheet List Table	
Sheet Number	Sheet Title
C001	COVER
C002	LEGEND
C201	SITE, DIMENSION & UTILITY PLAN
C301	GRADING PLAN
C302	STORMWATER & EROSION CONTROL PLAN
C303	STORMWATER CALCULATIONS
C304	STORMWATER CALCULATIONS
C501	DETAILS
C502	DETAILS

GENERAL NOTES:

1. APPROVAL OF THESE PLANS BY THE CITY ENGINEER DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL A NOTICE TO PROCEED HAS BEEN ISSUED.
2. THE APPROVAL OF THIS PLAN OR ISSUANCE OF A PERMIT BY THE CITY OF NIBLEY DOES NOT AUTHORIZE THE SUBDIVIDER AND OWNER TO VIOLATE ANY FEDERAL, STATE OR CITY LAWS, ORDINANCES, REGULATIONS, OR POLICIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A SURVEY CREW MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR VERTICAL CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DESTROYED, A SURVEY CREW SHALL REPLACE SUCH MONUMENTS WITH APPROPRIATE VERTICAL CONTROLLING MONUMENTS. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPLACING ANY VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.
4. CONTRACTOR SHALL CONTACT "BLUE STAKES" PRIOR TO START OF CONSTRUCTION ACTIVITIES BY CALLING 811 OR SUBMITTING AN ONLINE UTILITY LOCATION REQUEST AT WWW.BLUESTAKES.ORG.
5. CONTRACTOR SHALL IMPLEMENT AN EROSION AND SEDIMENT CONTROL PROGRAM DURING THE PROJECT GRADING AND/OR CONSTRUCTION ACTIVITIES. THE PROGRAM SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE STATE OF UTAH AND NIBLEY CITY.
6. "PUBLIC IMPROVEMENT SUBJECT TO DESUETUDE OR DAMAGE." IF REPAIR OR REPLACEMENT OF SUCH PUBLIC IMPROVEMENTS IS REQUIRED, THE OWNER SHALL OBTAIN THE REQUIRED PERMITS FOR WORK IN THE PUBLIC RIGHT-OF-WAY, SATISFACTORY TO THE PERMIT- ISSUING AUTHORITY.
7. PRIOR TO ANY DISTURBANCE TO THE SITE, EXCLUDING UTILITY MARK-OUTS AND SURVEYING, THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR A PRE-CONSTRUCTION MEETING WITH THE CITY OF NIBLEY.
8. DEVIATIONS FROM THESE SIGNED PLANS WILL NOT BE ALLOWED UNLESS A CONSTRUCTION CHANGE IS APPROVED BY THE CITY ENGINEER OR THE CHANGE IS REQUIRED BY THE CITY INSPECTOR.
9. ALL ADA RAMP FORMS MUST BE INSPECTED BY THE CITY AT LEAST 24 HOURS PRIOR TO POURING CONCRETE. REQUEST INSPECTION FROM THE CITY A MINIMUM OF 48 HOURS PRIOR TO NEEDING THE INSPECTION.

STANDARD DRAWINGS & SPECIFICATIONS:

1. NIBLEY CITY DESIGN STANDARDS AND SPECIFICATIONS AND STANDARD CONSTRUCTION DRAWINGS.
2. STORM WATER SPECIFICATIONS ARE PER THE EPA NATIONAL MENU OF STORMWATER BEST MANAGEMENT PRACTICES UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) AND THE UTAH DEPARTMENT OF WATER QUALITY STORMWATER MANAGMENT PROGRAM.
3. THE SPECIFICATIONS MENTIONED IN ITEMS ONE AND TWO SHALL SUPERSEDE ANY CONFLICTING SPECIFICATIONS CONTAINED WITHIN THESE PLANS.

NIBLEY CITY ENGINEERING DEPARTMENT APPROVAL:

THE IMPROVEMENT FOR THIS SUBDIVISION HAVE BEEN REVIEWED BY THE CITY ENGINEER FOR GENERAL CONFORMANCE WITH THE REQUIREMENTS OF THE CITY SUBDIVISION ORDINANCE. THIS SET OF CITY-APPROVED DRAWINGS SHALL BE USED FOR CONSTRUCTION OF THE REQUIRED SUBDIVISION IMPROVEMENTS. THE DEVELOPER'S ENGINEER, WHOSE STAMP IS ON THESE DRAWINGS, IS RESPONSIBLE FOR THE ENGINEERING DESIGN, DRAFTING, AND RELATED FIELD INFORMATION. THE CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE; FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATION OF HIS OR HER WORK WITH THAT OF ALL OTHER TRADES; AND THE SATISFACTORY PERFORMANCES OF HIS OR HER WORK.

BY:_____ DATE:_____

PROJECT CONTACTS:

1. CIVIL ENGINEER:

   MICHAEL TAYLOR
   498 WEST 100 SOUTH
   PROVIDENCE, UT 84332
   MTAYLOR@CSG.WORK
   P. 435.890.4498

2. SURVEYOR

   CURTIS BOWN
   498 WEST 100 SOUTH
   PROVIDENCE, UT 84332
   CBOWN@CSG.WORK
   P. 435.720.3761

3. NIBLEY CITY ENGINEER

   TOM DICKINSON
   455 W 3200 S
   NIBLEY, UT 84321
   TD@NIBLEYCITY.COM
   P. 435.752.0431

4. NIBLEY CITY PUBLIC WORKS DIRECTOR:

   STEVE ELIASON
   455 W 3200 S
   NIBLEY, UT 84321
   STEVE@NIBLEYCITY.COM
   P. 435.752.0431

5. HYRUM CITY FIRE DEPARTMENT:

   P. 435.245.7654

6. ROCKY MOUNTAIN POWER:

   BUILDER'S HOTLINE
   1.800.469.3981
   ROCKEYMOUNTAINPOWER.NET

7. UTAH STORM WATER PERMIT:

   UTAH DEPARMENT OF WATER QUALITY
   P.O. BOX 144870
   SALT LAKE CITY, UTAH 84114-4870
   P. 801.538.6146
   http://www.waterquality.utah.gov/UPDES/stormwater.htm

8. DOMINION ENGERGY:

   CRISTI FIEDEL
   895 WEST 800 NORTH
   LOGAN, UT 84321
   P. 435.752.7751

Know what's below. Call 811 before you dig.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC.
www.bluestakes.org
1-800-662-4111

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF CIVIL SOLUTIONS GROUP, INC. AND SHALL NOT BE PHOTOCOPIED, RE-DRAWN, OR USED ON ANY OTHER PROJECT OTHER THAN THE PROJECT SPECIFICALLY DESIGNED FOR, WITHOUT WRITTEN PERMISSION. THE OWNERS AND ENGINEERS OF CIVIL SOLUTIONS GROUP, INC. DISCLAIM ANY LIABILITY FOR ANY CHANGES OR MODIFICATIONS MADE TO THESE PLANS OR THE DESIGN THEREON WITHOUT THEIR CONSENT. THESE PLANS ARE DRAWN TO SCALE WHEN PLOTTED ON A 24" X 36" SHEET OF PAPER. THESE PLANS ARE PRODUCED IN COLOR AND SHOULD BE PLOTTED AS SUCH.

civilsolutionsgroup inc.
CACHE VALLEY | P: 435.213.3762
SALT LAKE | P: 801.216.3192
UTAH VALLEY | P: 801.874.1432
info@civilsolutionsgroup.net
www.civilsolutionsgroup.net

GODFREY DENTAL OFFICE
340 W & 3200 S
NIBLEY, UT, 84321

MARK:	DATE:	DESCRIPTION:

PROJECT #: 24-256
DRAWN BY: C. SCHAFFNER
PROJECT MANAGER: M. TAYLOR
ISSUED: 1/17/2025

PROFESSIONAL ENGINEER
1/17/2025
No. 8243188-2202
MICHAEL E. TAYLOR
STATE OF UTAH

COVER

C001

P:\2024\24-256 Ironwood Ridgeline Commercial\Civil\AutoCAD\Sheet Set\COVER & LEGEND

LEGEND EXISTING

- PROPERTY BOUNDARY
- STORM DRAIN LINE (sd)
- WATER LINE (w)
- IRRIGATION LINE (ir)
- GAS LINE (g)
- SEWER LINE (ss)
- BURIED POWER LINE (e)
- AERIAL POWER LINE (e)
- COMMUNICATION LINE (c)
- CONTOUR MINOR (####)
- CONTOUR MAJOR (####)
- ASPHALT
- OPEN FACE CURB AND GUTTER
- FENCE
- CONCRETE
- EXISTING TO BE REMOVED
- WATER VALVE
- FIRE HYDRANT
- STORMDRAIN BOX
- WATER METER
- SEWER MANHOLE

LEGEND PROPOSED

- WATER LINE (SIZE SHOWN ON PLAN) (W)
- STORM DRAIN LINE (SIZE SHOWN ON PLAN) (SD)
- IRRIGATION LINE (SIZE SHOWN ON PLAN) (IRR)
- GAS LINE (G)
- SANITARY SEWER LINE (SIZE SHOWN ON PLAN) (SS)
- BURIED POWER LINE (E)
- BURIED COMMUNICATION LINE (C)
- CONTOUR MAJOR (####)
- CONTOUR MINOR (####)
- ASPHALT
- CATCH CURB AND GUTTER
- SPILL CURB AND GUTTER
- CONCRETE SIDEWALK.
- BUILDING SETBACK
- WATER VALVE
- FIRE HYDRANT
- SEWER MANHOLE
- WATER METER
- STORMDRAIN BOX
- STORM WATER CATCH BASIN

civilsolutionsgroup inc.
CACHE VALLEY | P: 435.213.3762
SALT LAKE | P: 801.216.3192
UTAH VALLEY | P: 801.874.1432
info@civilsolutionsgroup.net
www.civilsolutionsgroup.net

GODFREY DENTAL OFFICE
340 W & 3200 S
NIBLEY, UT, 84321

MARK:	DATE:	DESCRIPTION:

PROJECT #: 24-256
DRAWN BY: C. SCHAFFNER
PROJECT MANAGER: M. TAYLOR
ISSUED: 1/17/2025

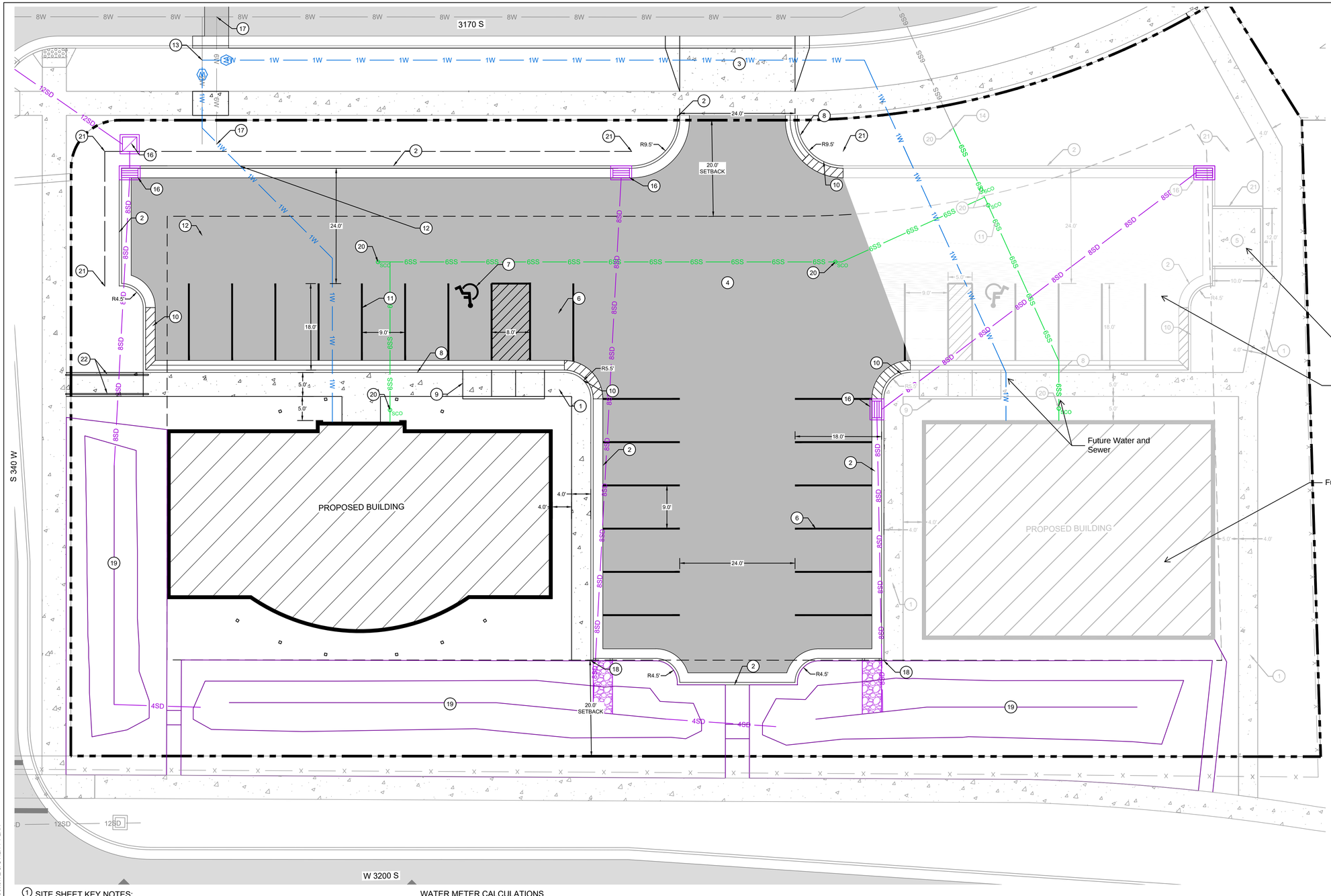
PROFESSIONAL ENGINEER
1/17/2025
No. 8243188-2202
MICHAEL S. TAYLOR
STATE OF UTAH

LEGEND

C002

Know what's below. Call 811 before you dig.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC.
www.bluestakes.org
1-800-662-4111

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF CIVIL SOLUTIONS GROUP, INC. AND SHALL NOT BE PHOTOCOPIED, RE-DRAWN, OR USED ON ANY OTHER PROJECT OTHER THAN THE PROJECT SPECIFICALLY DESIGNED FOR, WITHOUT WRITTEN PERMISSION. THE OWNERS AND ENGINEERS OF CIVIL SOLUTIONS GROUP, INC. DISCLAIM ANY LIABILITY FOR ANY CHANGES OR MODIFICATIONS MADE TO THESE PLANS OR THE DESIGN THEREON WITHOUT THEIR CONSENT. THESE PLANS ARE DRAWN TO SCALE WHEN PLOTTED ON A 24" X 36" SHEET OF PAPER. THESE PLANS ARE PRODUCED IN COLOR AND SHOULD BE PLOTTED AS SUCH.



GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND CONTACT ENGINEER IF DIFFERENT FROM LOCATIONS DISPLAYED ON THESE PLANS.
2. MINIMUM OF 10' FROM OUTSIDE-OF-PIPE TO OUTSIDE-OF-PIPE REQUIRED BETWEEN CULINARY WATER LINE AND ALL SANITARY SEWER LINES.
3. ALL SEWER, STORM DRAIN AND CULINARY WATER LINES SHALL BE INSTALLED PER UTILITY TRENCHING DETAIL FOUND IN STANDARD DRAWING 01 ON SHEET C-502.
4. ALL CULINARY WATER LINES SHALL BE AWWA C900 DR18. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 5' OF COVER.
5. CONTRACTOR SHALL PLACE CONCRETE THRUST BLOCKS ON ALL TEES, WYES, BENDS, ANGLES, ETC ON ALL WATER AND IRRIGATION LINES AS SHOWN IN DETAIL 07 ON SHEET C-501.
6. POWER - CONTRACTOR SHALL COORDINATE WITH OWNER AND ROCKY MOUNTAIN POWER TO DETERMINE PRECISE LOCATION AND LAYOUT OF POWER LINES THROUGH DEVELOPMENT. CONTRACTOR SHALL BE RESPONSIBLE TO TRENCH, BED, INSTALL AND FILL IN THE POWER TRENCH AND PROVIDE THE REQUIRED PVC SCHEDULE 40 CONDUIT.
7. TELEPHONE AND CABLE - CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES FOR LOCATION OF CONDUIT CROSSINGS AND SHALL INSTALL ALL CONDUITS.
8. GAS - CONTRACTOR SHALL COORDINATE INSTALLATION OF GAS WITH DOMINION ENERGY.
9. CONTRACTOR TO INSTALL A SANITARY SEWER CLEANOUT AT EVERY BEND EXCEEDING 45°, TEE INTERSECTION, OR AT A SPACING NO GREATER THAN 100 FEET. (PROPOSED CLEAN-OUT LOCATIONS SHOWN IN PLAN)

(1) SITE SHEET KEY NOTES:

PROVIDE, INSTALL, AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. CONCRETE SIDEWALK (1/C501)
2. CATCH CURB & GUTTER (3/C502)
3. CONCRETE DRIVEWAY APPROACH (5/C501)
4. STANDARD DUTY ASPHALT PAVEMENT (4/C501)
5. DUMPSTER ENCLOSURE. INSTALL 6" OF CONCRETE OVER 6" OF UNTREATED BASE COURSE.
6. 4" YELLOW PAINT STRIPE
7. ADA PARKING STALL WITH ADA SIGNAGE AND MARKINGS
8. 2.5' SPILL CURB & GUTTER (4/C502)
9. PARALLEL ADA CURB RAMP (6/C501)
10. TRANSITION FROM CATCH TO SPILL CURB & GUTTER.
11. 6" Ø SANITARY SEWER SERVICE TYP. (3/C501)
12. 1" Ø CULINARY WATER SERVICE & METER. CONTRACTOR TO REMOVE EXISTING 2"Ø STUB AS NECESSARY TO INSTALL WATER METERS (1/C503)
13. CONNECT TO EXISTING WATERLINE
14. CONNECT TO EXISTING SEWER LINE
15. CURB CUT SCUPPER (2/C501)
16. STORMWATER STRUCTURE. SEE C302 FOR DESIGN. (2/C502)
17. CONTRACTOR TO REMOVE EXISTING 6"Ø STUB AND CAP AT THE 8"Ø MAINLINE. REMOVE EXISTING SIDEWALK, CURB & GUTTER, AND ASPHALT AS NECESSARY. CONTRACTOR TO PATCH ASPHALT ACCORDING TO NIBLEY CITY STANDARDS.
18. CURB CUT SCUPPER. (2/C501)
19. STORMWATER POND. SEE C301 & C302 FOR DESIGN.
20. SANITARY SEWER CLEANOUT.
21. EARTHEN BERM. SEE C301 FOR ELEVATIONS
22. INSTALL HAND-RAILINGS ACCORDING TO ADA STANDARDS.

WATER METER CALCULATIONS

Fixture	No. of Fixtures	Flowrate (gpm)	Total Flowrate (gpm)
Mop Sink	1	2.5	2.5
Toilet	5	0.4	2
Sink	8	2.2	17.6
Shower	1	2.5	2.5
Drinking Fountain	1	0.75	0.75
Irrigation	1	11.7	11.7
Total			37.05

Neptune 1" meter is rated for flowrates from 3 - 50 gpm

Know what's below. Call 811 before you dig.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC.
www.bluestakes.org
1-800-662-4111

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF CIVIL SOLUTIONS GROUP, INC. AND SHALL NOT BE PHOTOCOPIED, RE-DRAWN, OR USED ON ANY OTHER PROJECT OTHER THAN THE PROJECT SPECIFICALLY DESIGNED FOR, WITHOUT WRITTEN PERMISSION. THE OWNERS AND ENGINEERS OF CIVIL SOLUTIONS GROUP, INC. DISCLAIM ANY LIABILITY FOR ANY CHANGES OR MODIFICATIONS MADE TO THESE PLANS OR THE DESIGN THEREON WITHOUT THEIR CONSENT. THESE PLANS ARE DRAWN TO SCALE WHEN PLOTTED ON A 24" X 36" SHEET OF PAPER. THESE PLANS ARE PRODUCED IN COLOR AND SHOULD BE PLOTTED AS SUCH.

civilsolutionsgroup inc.
CACHE VALLEY | P: 435.213.3762
SALT LAKE | P: 801.216.3192
UTAH VALLEY | P: 801.874.1432
info@civilsolutionsgroup.net
www.civilsolutionsgroup.net

GODFREY DENTAL OFFICE

340 W & 3200 S
NIBLEY, UT, 84321

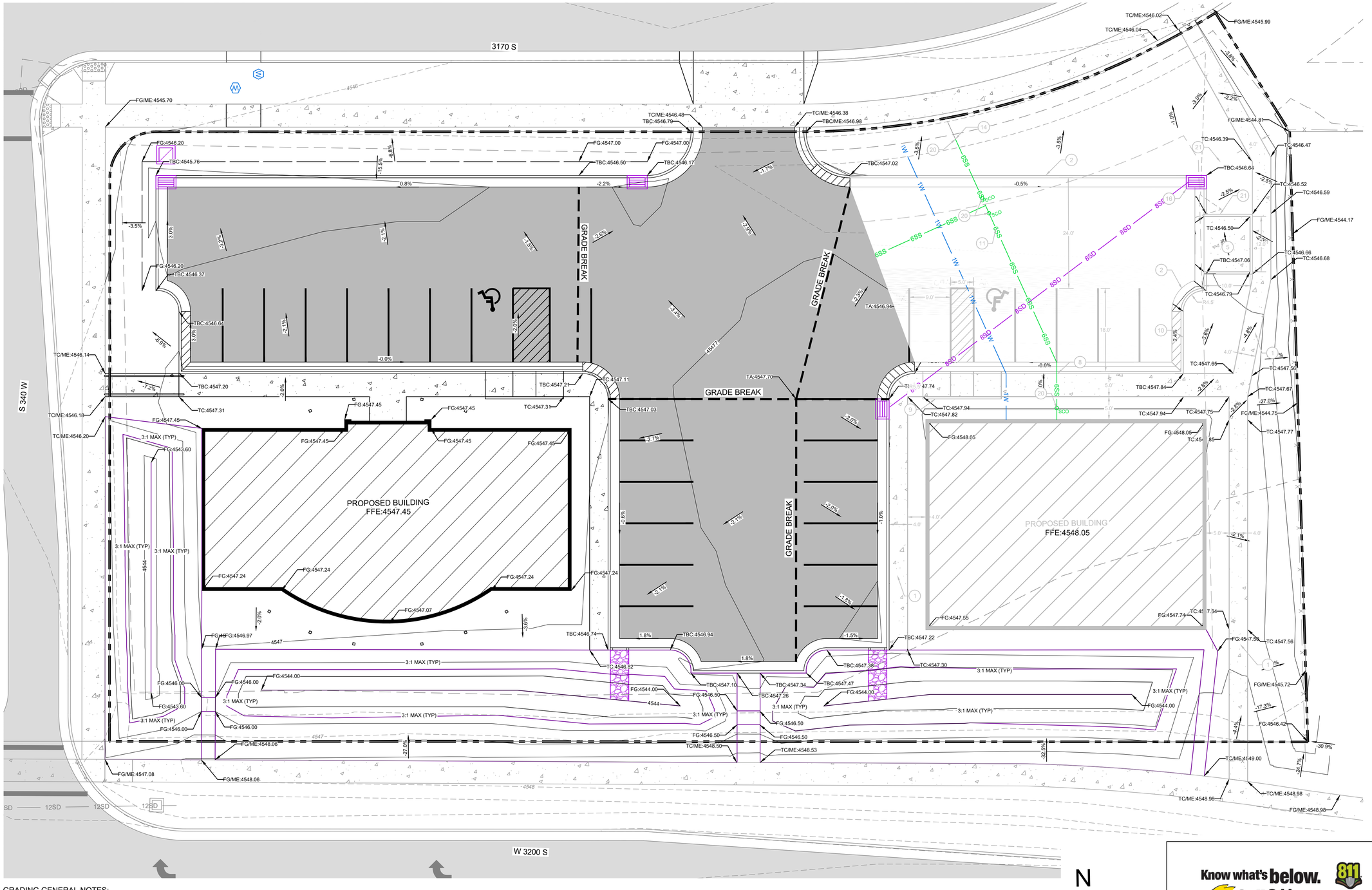
MARK:	DATE:	DESCRIPTION:

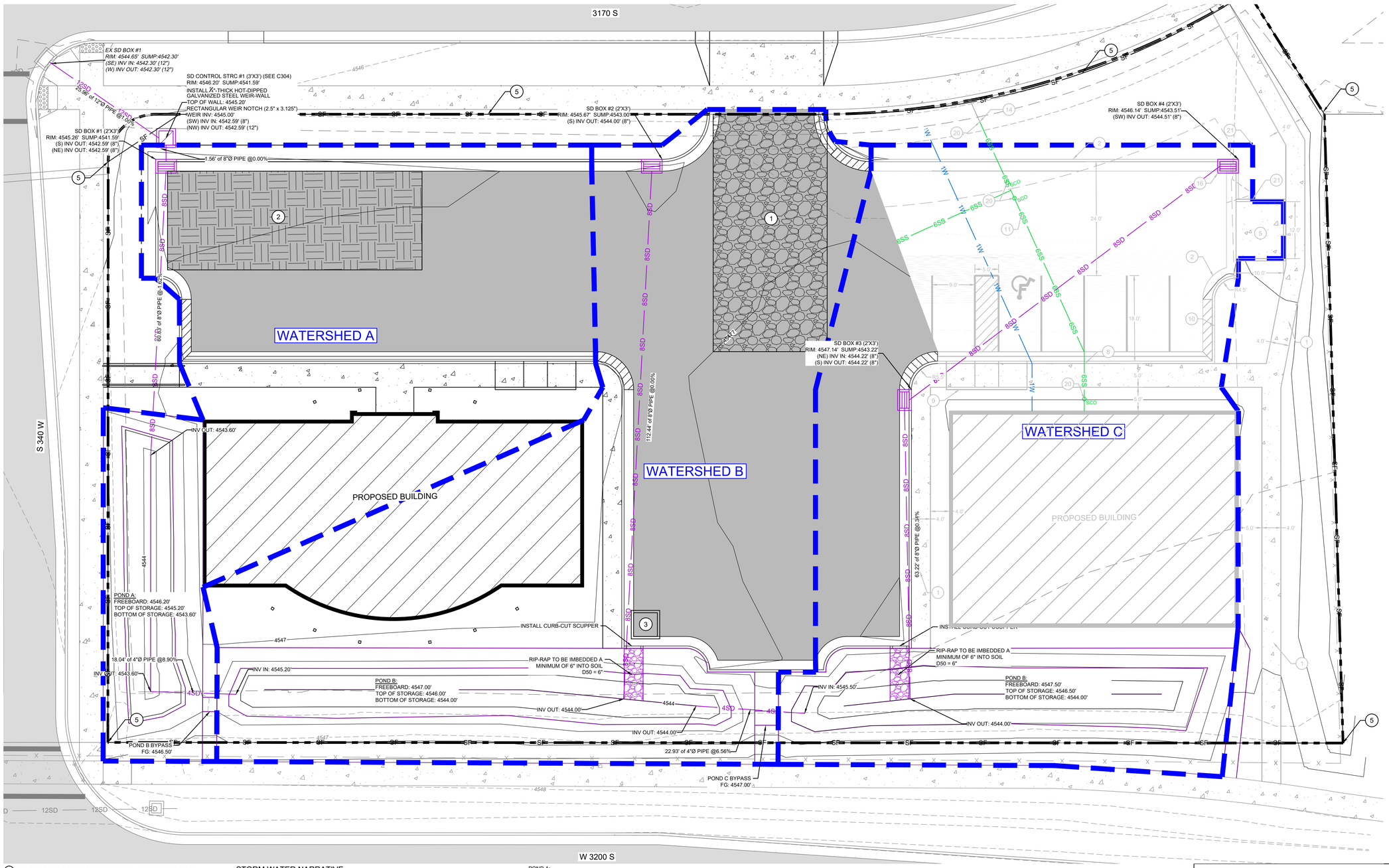
PROJECT #: 24-256
DRAWN BY: C. SCHAFFNER
PROJECT MANAGER: M. TAYLOR
ISSUED: 1/17/2025

PROFESSIONAL ENGINEER
1/17/2025
No. 8243188-2202
MICHAEL E. TAYLOR
STATE OF UTAH

SITE, DIMENSION & UTILITY PLAN

C201


3170 S
W 3200 S
S 340 W
GRADE BREAK
GRADE BREAK
GRADE BREAK
PROPOSED BUILDING
FFE:4547.45
PROPOSED BUILDING
FFE:4548.05
3:1 MAX (TYP)
FG/ME:4545.70
FG:4546.20
TBC:4545.76
TC/ME:4546.48
TBC:4546.79
TC/ME:4546.38
TBC/ME:4546.98
FG:4547.00
TBC:4546.50
TBC:4546.17
TBC:4547.02
TC/ME:4546.02
TC/ME:4546.04
FG/ME:4545.99
FG/ME:4544.81
TC:4546.39
TC:4546.47
TBC:4546.64
TC:4546.52
TC:4546.59
FG/ME:4544.17
TC:4546.50
TC:4546.66
TC:4546.68
TBC:4547.06
TC:4546.70
TA:4546.94
TA:4547.70
TC:4547.65
TC:4547.50
TC:4547.67
TBC:4547.84
TC:4547.94
TC:4547.82
TC:4547.75
FG/ME:4544.75
TC:4547.77
FG:4548.05
TC:4547.85
FG:4547.55
FG:4547.74
TC:4547.54
FG:4547.58
TC:4547.56
FG/ME:4545.72
FG:4546.42
TC/ME:4549.00
TC/ME:4548.98
TC/ME:4548.98
FG/ME:4548.98
TC/ME:4546.14
TBC:4547.20
TC:4547.31
TC:4547.11
TBC:4547.21
TBC:4547.03
TC/ME:4546.18
TC/ME:4546.20
FG:4547.45
FG:4543.60
FG:4547.24
FG:4547.07
TBC:4546.74
TBC:4546.94
TBC:4547.22
TC:4546.82
TBC:4547.38
TC:4547.30
TBC:4547.10
TBC:4547.34
TBC:4547.47
TBC:4547.26
FG:4544.00
FG:4546.50
FG:4546.00
FG:4543.60
FG:4544.00
FG:4546.00
FG:4546.97
FG/ME:4548.06
FG/ME:4547.08
TC/ME:4548.50
TC/ME:4548.53
4547
4544
4548
-2.0%
-3.6%
-27.0%
-32.5%
-30.9%
-24.7%
-17.3%
-14.4%
-27.0%
1.8%
-1.5%
-1.0%
-0.6%
-2.1%
-2.7%
-2.8%
-3.4%
-3.5%
-1.7%
-0.5%
-2.2%
-1.9%
-3.8%
-2.5%
-4.8%
-15.5%
-0.8%
-7.2%
-0.0%
-4.0%
-2.4%
-1.0%
-2.7%
-2.1%
-2.8%
-2.8%
-2.8



1 EROSION CONTROL PLAN SHEET KEY NOTES:

PROVIDE, INSTALL, AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. VEHICLE TRACK OUT PAD
2. MATERIAL STAGING AREA
3. PORTABLE TOILET
4. CONCRETE WASHOUT FACILITY
5. SILT FENCE

STORM WATER NARRATIVE:

THIS SITE HAS BEEN DESIGNED TO RETAIN THE CACHE VALLEY 80TH PERCENTILE STORM OF 0.50 IN & DETAIN THE CACHE VALLEY 100-YR 24-HR STORM OF 3.02 IN. THE DETENTION VOLUME WAS CALCULATED UTILIZING THE RATIONAL METHOD. ALL STORM DRAIN INFRASTRUCTURE HAS BEEN SIZED TO CONVEY THE 10-YR 24-HR STORM. SEE SHEET C303 FOR ALL STORMWATER CALCULATIONS

THIS SITE HAS BEEN DELINEATED INTO THREE WATERSHEDS AS SHOWN ABOVE. ALL STOMRWATER RUNOFF IS TO BE CONVEYED AND STORED IN THREE STORMWATER PONDS. STORMWATER RUNOFF IS WILL BE DISCHARGED IN THE NORTHWEST CORNER OF THE SITE AT THE PRE-DEVELOPMENT RUNOFF RATE OF 0.12 CFS (SEE C303).

POND A:

REQUIRED RETENTION VOLUME: 386 CF
PROVIDED RETENTION VOLUME: 403 CF (ELEV: 4545.00')

REQUIRED DETENTION VOLUME: 527 CF
PROVIDED DETENTION VOLUME: 535 CF
POND: 472 CF
PIPE & BOX: 63 CF

POND B:

REQUIRED RETENTION VOLUME: 446 CF
PROVIDED RETENTION VOLUME: 474 CF (ELEV: 4545.20')

REQUIRED DETENTION VOLUME: 760 CF
PROVIDED DETENTION VOLUME: 763 CF

POND C:

REQUIRED RETENTION VOLUME: 479 CF
PROVIDED RETENTION VOLUME: 503 CF (ELEV: 4545.50')

REQUIRED DETENTION VOLUME: 862 CF
PROVIDED DETENTION VOLUME: 902 CF

N

0 10 20 Feet

Know what's below. Call 811 before you dig.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC.
www.bluestakes.org
1-800-662-4111

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF CIVIL SOLUTIONS GROUP, INC. AND SHALL NOT BE PHOTOCOPIED, RE-DRAWN, OR USED ON ANY OTHER PROJECT OTHER THAN THE PROJECT SPECIFICALLY DESIGNED FOR, WITHOUT WRITTEN PERMISSION. THE OWNERS AND ENGINEERS OF CIVIL SOLUTIONS GROUP, INC. DISCLAIM ANY LIABILITY FOR ANY CHANGES OR MODIFICATIONS MADE TO THESE PLANS OR THE DESIGN THEREON WITHOUT THEIR CONSENT. THESE PLANS ARE DRAWN TO SCALE WHEN PLOTTED ON A 24" X 36" SHEET OF PAPER. THESE PLANS ARE PRODUCED IN COLOR AND SHOULD BE PLOTTED AS SUCH.

civilsolutionsgroup inc.
CACHE VALLEY | P: 435.213.3762
SALT LAKE | P: 801.216.3192
UTAH VALLEY | P: 801.874.1432
info@civilsolutionsgroup.net
www.civilsolutionsgroup.net

GODFREY DENTAL OFFICE

340 W & 3200 S
NIBLEY, UT, 84321

MARK:	DATE:	DESCRIPTION:

PROJECT #: 24-256
DRAWN BY: C. SCHAFFNER
PROJECT MANAGER: M. TAYLOR
ISSUED: 1/17/2025

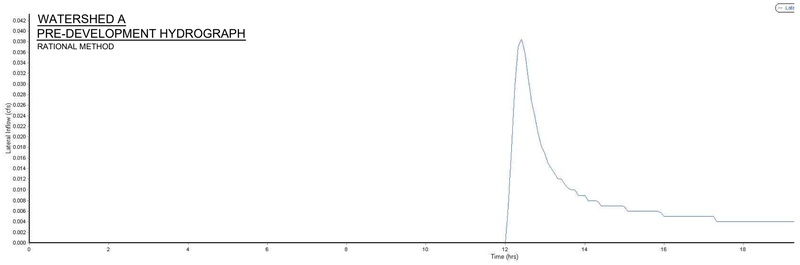
PROFESSIONAL ENGINEER
1/17/2025
No. 6243188-2202
MICHAEL S. TAYLOR
STATE OF UTAH

STORMWATER & EROSION CONTROL PLAN

C302

P:\2024\24-256 Ironwood Ridgeline Commercial\Civil\AutoCAD\Sheet Set\GRADING & STORMWATER PLAN

WATERSHED A
PRE-DEVELOPMENT HYDROGRAPH
RATIONAL METHOD



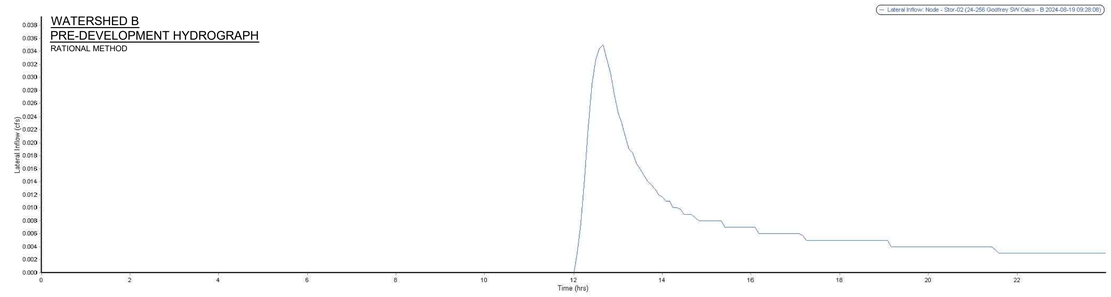
Lateral Inflow Summary Table

Time period	
From:	08/16/2024, 12:00:00 AM
To:	08/17/2024, 12:00:00 AM
Thresholds	
Exceedance:	0
Deficit:	0
Detention storage	
Max flow:	0

Element ID	Stor-02
Maximum Lateral Inflow (cfs)	0.04
Minimum Lateral Inflow (cfs)	0.00
Event Mean Lateral Inflow (cfs)	0.00
Duration of Exceedances (hrs)	N/A
Duration of Deficits (hrs)	N/A
Number of Exceedances	N/A
Number of Deficits	N/A
Volume of Exceedance (lf)	N/A
Volume of Deficit (lf)	N/A
Total Lateral Inflow (lf)	282.05
Detention Storage (lf)	N/A

0.20 CFS/AC * 0.21 AC = **0.04 CFS**

WATERSHED B
PRE-DEVELOPMENT HYDROGRAPH
RATIONAL METHOD



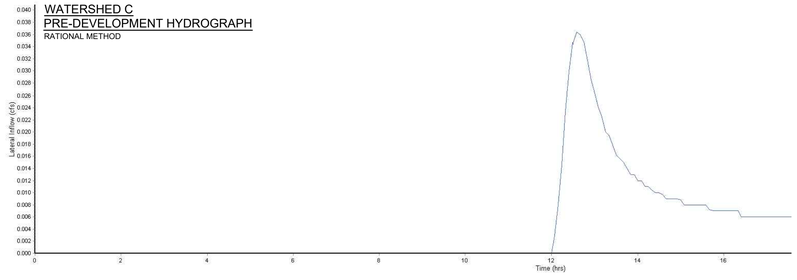
Lateral Inflow Summary Table

Time period	
From:	08/16/2024, 12:00:00 AM
To:	08/17/2024, 12:00:00 AM
Thresholds	
Exceedance:	0
Deficit:	0
Detention storage	
Max flow:	0

Element ID	Stor-02
Maximum Lateral Inflow (cfs)	0.04
Minimum Lateral Inflow (cfs)	0.00
Event Mean Lateral Inflow (cfs)	0.00
Duration of Exceedances (hrs)	N/A
Duration of Deficits (hrs)	N/A
Number of Exceedances	N/A
Number of Deficits	N/A
Volume of Exceedance (lf)	N/A
Volume of Deficit (lf)	N/A
Total Lateral Inflow (lf)	327.25
Detention Storage (lf)	N/A

0.20 CFS/AC * 0.25 AC = **0.05 CFS**

WATERSHED C
PRE-DEVELOPMENT HYDROGRAPH
RATIONAL METHOD



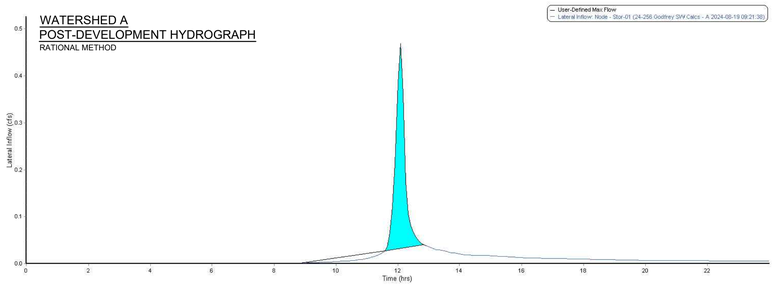
Lateral Inflow Summary Table

Time period	
From:	08/16/2024, 12:00:00 AM
To:	08/17/2024, 12:00:00 AM
Thresholds	
Exceedance:	0
Deficit:	0
Detention storage	
Max flow:	0

Element ID	Stor-02
Maximum Lateral Inflow (cfs)	0.04
Minimum Lateral Inflow (cfs)	0.00
Event Mean Lateral Inflow (cfs)	0.00
Duration of Exceedances (hrs)	N/A
Duration of Deficits (hrs)	N/A
Number of Exceedances	N/A
Number of Deficits	N/A
Volume of Exceedance (lf)	N/A
Volume of Deficit (lf)	N/A
Total Lateral Inflow (lf)	348.11
Detention Storage (lf)	N/A

0.20 CFS/AC * 0.26 AC = **0.05 CFS**

WATERSHED A
POST-DEVELOPMENT HYDROGRAPH
RATIONAL METHOD

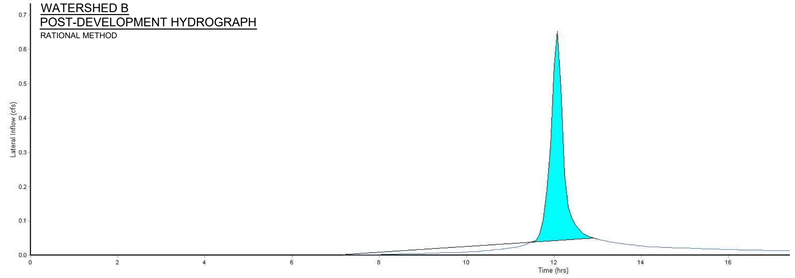


Lateral Inflow Summary Table

Time period	
From:	08/16/2024, 12:00:00 AM
To:	08/17/2024, 12:00:00 AM
Thresholds	
Exceedance:	0
Deficit:	0
Detention storage	
Max flow:	0.04

Element ID	Stor-01
Maximum Lateral Inflow (cfs)	0.47
Minimum Lateral Inflow (cfs)	0.00
Event Mean Lateral Inflow (cfs)	0.01
Duration of Exceedances (hrs)	N/A
Duration of Deficits (hrs)	N/A
Number of Exceedances	N/A
Number of Deficits	N/A
Volume of Exceedance (lf)	N/A
Volume of Deficit (lf)	N/A
Total Lateral Inflow (lf)	1223.6
Detention Storage (lf)	526.90

WATERSHED B
POST-DEVELOPMENT HYDROGRAPH
RATIONAL METHOD

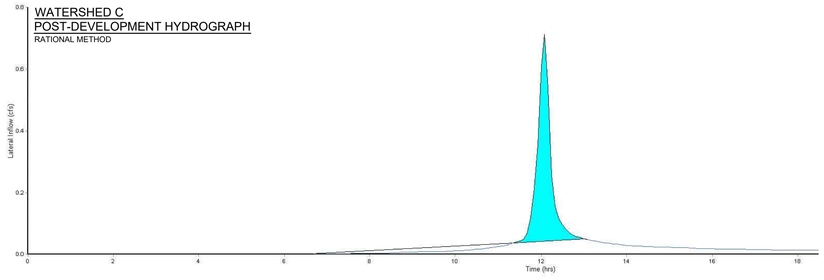


Lateral Inflow Summary Table

Time period	
From:	08/16/2024, 12:00:00 AM
To:	08/17/2024, 12:00:00 AM
Thresholds	
Exceedance:	0
Deficit:	0
Detention storage	
Max flow:	0.05

Element ID	Stor-01
Maximum Lateral Inflow (cfs)	0.65
Minimum Lateral Inflow (cfs)	0.00
Event Mean Lateral Inflow (cfs)	0.02
Duration of Exceedances (hrs)	N/A
Duration of Deficits (hrs)	N/A
Number of Exceedances	N/A
Number of Deficits	N/A
Volume of Exceedance (lf)	N/A
Volume of Deficit (lf)	N/A
Total Lateral Inflow (lf)	1726.69
Detention Storage (lf)	760.23

WATERSHED C
POST-DEVELOPMENT HYDROGRAPH
RATIONAL METHOD



Lateral Inflow Summary Table

Time period	
From:	08/16/2024, 12:00:00 AM
To:	08/17/2024, 12:00:00 AM
Thresholds	
Exceedance:	0
Deficit:	0
Detention storage	
Max flow:	0.05

Element ID	Stor-01
Maximum Lateral Inflow (cfs)	0.71
Minimum Lateral Inflow (cfs)	0.00
Event Mean Lateral Inflow (cfs)	0.02
Duration of Exceedances (hrs)	N/A
Duration of Deficits (hrs)	N/A
Number of Exceedances	N/A
Number of Deficits	N/A
Volume of Exceedance (lf)	N/A
Volume of Deficit (lf)	N/A
Total Lateral Inflow (lf)	1898.01
Detention Storage (lf)	861.14

civilsolutionsgroup inc.
CACHE VALLEY | P: 435.213.3762
SALT LAKE | P: 801.216.3192
UTAH VALLEY | P: 801.874.1432
info@civilsolutionsgroup.net
www.civilsolutionsgroup.net

GODFREY DENTAL OFFICE
340 W & 3200 S
NIBLEY, UT, 84321

MARK:	DATE:	DESCRIPTION:

PROJECT #: 24-256
DRAWN BY: C. SCHAFFNER
PROJECT MANAGER: M. TAYLOR
ISSUED: 1/17/2025

PROFESSIONAL ENGINEER
1/17/2025
No. 8243188-2202
MICHAEL S. TAYLOR
STATE OF UTAH

STORMWATER CALCULATIONS

C303

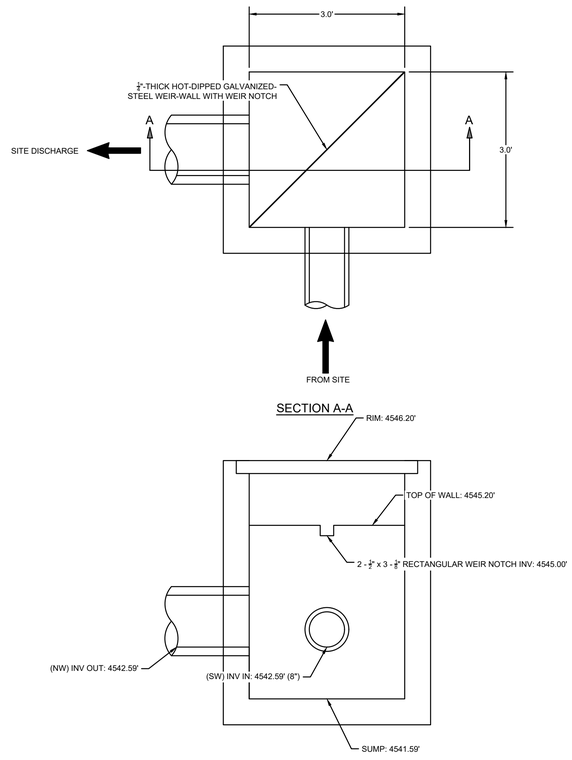
P:\2024\24-256 Ironwood Ridgeline Commercial\Civil\AutoCAD\Sheet Set\GRADING & STORMWATER PLAN

STORMWATER CALCULATIONS				
Godfrey Dentist Office				
Watershed A				
Description	Area (sq ft)	Area (ac)	CN (Group B)	(SubArea / TotalArea)*CN
Hardscape	6,126	0.14	98	65
Landscape	3,129	0.07	61	21
Total Area:	9,255	0.21		**85**
80th-Percentile Storm (0.5-inches):		386	cf	
Initial Abstraction		0.34	inches	
Precipitation (10 Yr)	24 hour storm	2.04	inches	
Precipitation (100 Yr)	24 hour storm	3.02	inches	
Direct Runoff (10 Yr)	24 hour storm	0.85	total runoff depth	
Direct Runoff (100 Yr)	24 hour storm	1.64	total runoff depth	
Post Development				
10-Year Direct Runoff	0.02	acre-ft	656	cf
100-Year Direct Runoff	0.03	acre-ft	1,266	cf

STORMWATER CALCULATIONS				
Godfrey Dentist Office				
Watershed B				
Description	Area (sq ft)	Area (ac)	CN (Group B)	(SubArea / TotalArea)*CN
Hardscape	8,228	0.19	98	75
Landscape	2,478	0.06	61	14
Total Area:	10,706	0.25		**89**
80th-Percentile Storm (0.5-inches):		446	cf	
Initial Abstraction		0.24	inches	
Precipitation (10 Yr)	24 hour storm	2.04	inches	
Precipitation (100 Yr)	24 hour storm	3.02	inches	
Direct Runoff (10 Yr)	24 hour storm	1.09	total runoff depth	
Direct Runoff (100 Yr)	24 hour storm	1.95	total runoff depth	
Post Development				
10-Year Direct Runoff	0.02	acre-ft	972	cf
100-Year Direct Runoff	0.04	acre-ft	1,744	cf

STORMWATER CALCULATIONS				
Godfrey Dentist Office				
Watershed C				
Description	Area (sq ft)	Area (ac)	CN (Group B)	(SubArea / TotalArea)*CN
Hardscape	8,849	0.20	98	76
Landscape	2,636	0.06	61	14
Total Area:	11,485	0.26		**90**
80th-Percentile Storm (0.5-inches):		479	cf	
Initial Abstraction		0.23	inches	
Precipitation (10 Yr)	24 hour storm	2.04	inches	
Precipitation (100 Yr)	24 hour storm	3.02	inches	
Direct Runoff (10 Yr)	24 hour storm	1.09	total runoff depth	
Direct Runoff (100 Yr)	24 hour storm	1.96	total runoff depth	
Post Development				
10-Year Direct Runoff	0.02	acre-ft	1,048	cf
100-Year Direct Runoff	0.04	acre-ft	1,876	cf

Weir Size Calculation	
H = Head = W.S.E. - INV. =	0.20 ft
P.Q. = Peak Allowable Discharge =	0.12 cfs
Weir Area =	7.89 inches



SD CONTROL STRC #1 (3'X3') DETAIL

Know what's below. 811
Call 811 before you dig.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC.
www.bluestakes.org
1-800-662-4111

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF CIVIL SOLUTIONS GROUP, INC. AND SHALL NOT BE PHOTOCOPIED, RE-DRAWN, OR USED ON ANY OTHER PROJECT OTHER THAN THE PROJECT SPECIFICALLY DESIGNED FOR, WITHOUT WRITTEN PERMISSION. THE OWNERS AND ENGINEERS OF CIVIL SOLUTIONS GROUP, INC. DISCLAIM ANY LIABILITY FOR ANY CHANGES OR MODIFICATIONS MADE TO THESE PLANS OR THE DESIGN THEREON WITHOUT THEIR CONSENT. THESE PLANS ARE DRAWN TO SCALE WHEN PLOTTED ON A 24" X 36" SHEET OF PAPER. THESE PLANS ARE PRODUCED IN COLOR AND SHOULD BE PLOTTED AS SUCH.

civilsolutionsgroup inc.
CACHE VALLEY | P: 435.213.3762
SALT LAKE | P: 801.216.3192
UTAH VALLEY | P: 801.874.1432
info@civilsolutionsgroup.net
www.civilsolutionsgroup.net

GODFREY DENTAL OFFICE
340 W & 3200 S
NIBLEY, UT, 84321

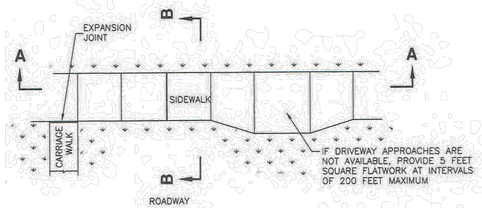
MARK:	DATE:	DESCRIPTION:

PROJECT #: 24-256
DRAWN BY: C. SCHAFFNER
PROJECT MANAGER: M. TAYLOR
ISSUED: 1/17/2025

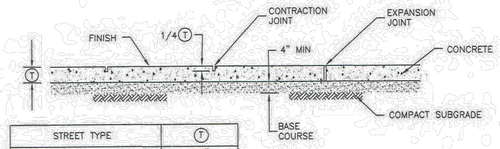
PROFESSIONAL ENGINEER
1/17/2025
No. 8243188-2202
MICHAEL E. TAYLOR
STATE OF UTAH

STORMWATER CALCULATIONS

C304



PLAN



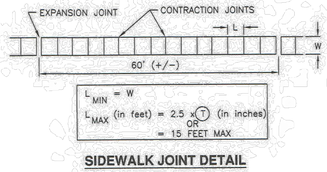
STREET TYPE	T
RESIDENTIAL (WITH PARK STRIP)	4"
RESIDENTIAL (NO PARK STRIP)	6"
OTHER	
REPLACING EXISTING SIDEWALK	MATCH EXISTING (4" MIN.)

SEE DRIVEWAY APPROACH PLANS FOR SIDEWALK THICKNESS AT DRIVEWAYS

SECTION A-A



SECTION B-B



SIDEWALK JOINT DETAIL

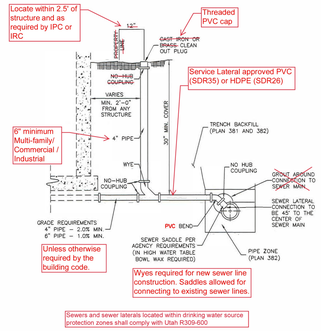
1 / C501 CONCRETE SIDEWALK
NOT TO SCALE

Patterned concrete

1. **GENERAL**
   - A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER's discretion.
   - B. Color and Pattern: As specified or as selected by ENGINEER.
   - C. Additional sidewalk, curb and gutter requirements are in APWA Section 32 16 13.

2. **PRODUCTS**
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73..
   - C. Concrete: Class 4000, APWA Section 03 30 04.
   - D. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

3. **EXECUTION**
   - A. Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   - B. Concrete Placement: APWA Section 03 30 10.
     1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface.
     2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Maximum length to width ratio for non-square panels is 1.5 to 1. Maximum panel length (in feet) is 1.5 times the slab thickness (in inches). Match joint location in adjacent sidewalk.
     3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.



Sewers and sewer laterals located within drinking water source protection zones shall comply with Utah R309-600

Sewer lateral relocation

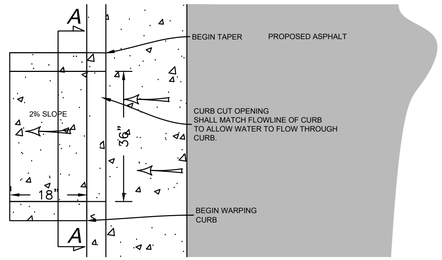
1. **GENERAL**
   - A. Before installation, secure acceptance by ENGINEER for all pipe, fittings, and couplings to be used.
   - B. Before backfilling, secure inspection of installation by ENGINEER. Give at least 24 hours notice.
   - C. Verify if CONTRACTOR or agency is to install the wye or donut.

2. **PRODUCTS**
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course ~~without ENGINEER's permission~~.
   - B. Backfill: Common fill, APWA Section 31 05 13. **BORROW**- Maximum particle size 3-inches.
   - C. Provide agency approved wye or tee with appropriate donut.

3. **EXECUTION**
   - A. ~~Tape wrap metal pipe and metal fittings.~~ Only PVC and HDPE allowed.
   - B. Do not install couplings under the obstruction.
   - C. Under the obstruction, loosely compact granular material or sand. Flowable fill not allowed.
   - D. Base Course and Backfill Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.

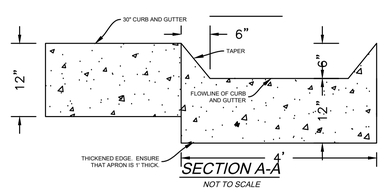
Sewers and sewer laterals located within drinking water source protection zones shall comply with Utah R309-600

3 / C501 SANITARY SEWER SERVICE
NOT TO SCALE

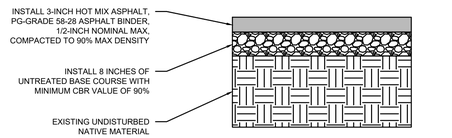


2 / C501 CURB CUT SCUPPER
NOT TO SCALE

NOTES:
1. *THE CONCRETE APRON SHALL BE CAST IN PLACE CONCURRENTLY WITH THE CURB AND GUTTER.*
2. *THE CONCRETE APRON SHALL BE 4,000 PSI, 28 DAY STRENGTH.*



SECTION A-A
NOT TO SCALE



*PAVEMENT SHALL CONFORM TO THE GEOTECHNICAL REPORT BY CIVIL SOLUTIONS GROUP.

4 / C501 STANDARD DUTY ASPHALT
NOT TO SCALE

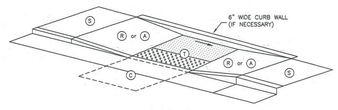
Mid-block curb cut assembly

1. **GENERAL**
   - A. Where existing elements or spaces are altered to receive an assembly; slopes and dimensions shall comply with slopes and dimensions shown on the drawing, or to the maximum extent feasible permitted by the ENGINEER. Final configuration of the assembly may be different than shown.
   - B. Installation of a curb wall is ENGINEER's choice.
   - C. Definitions and supplemental requirements are specified in APWA Section 32 16 14.

2. **PRODUCTS**
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73..
   - C. Detectable Warning Surface: Paver, ribbed composite panel, or tile. Provide a color that contrasts with adjacent walking surface, either light-on-dark or dark-on-light. ENGINEER to select type and color unless indicated elsewhere.
   - D. Concrete: Class 4000, APWA Section 03 30 04.
   - E. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

3. **EXECUTION**
   - A. Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   - B. Curb Modifications:
     1) The sloped surface created to accommodate the ramp or approach areas shall be perpendicular to the back of curb.
     2) No grade break shall exist between the flow-line and the turning space. Length of the curb modification abutting the turning space is 4 feet minimum.
   - C. Curb Ramp: Length not required to exceed 15 feet. Grade breaks are perpendicular to the direction of ramp run and are not permitted on the ramp or turning space surface. Sides are parallel to each other and perpendicular to the ends.
   - D. Curb Wall: Set top of curb wall equal to elevation of extended lateral lines of sidewalk.
   - E. Concrete Placement: APWA Section 03 30 10.
     1) Maximum length to width ratio for rectangular panel joints is 1.5 to 1. Joint spacing measured in feet not to exceed twice slab thickness measured in inches or a maximum of 15 feet.
     2) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface. Install contraction joints vertical, 1/8-inch wide, and 1/4 of the depth of the concrete flatwork.
     3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   - F. Clear Space: No trip hazards in the clear space.

TURNING SPACE AT STREET LEVEL



EXAMPLE 5

ELEMENT	DIMENSION
B A	4 FEET WIDE MINIMUM
C T	4 FEET SQUARE MINIMUM

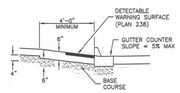
WHERE TURNING SPACE IS CONSTRAINED ON 2 SIDES, PROVIDE 5 FEET IN THE DIRECTION OF THE CROSSWALK

TABLE OF DIMENSIONS

		RUNNING SLOPE (%) MAXIMUM	CROSS SLOPE (%) MAXIMUM
TURNING SPACE	T	STREET GRADE	2
CURB RAMP	W	8.33	2
CLEAR SPACE	C	---- 5	STREET GRADE
SIDEWALK	S	STREET GRADE	2
APPROACHE	A	8.33	2

(a) RUNNING SLOPE IS IN THE DIRECTION OF PEDESTRIAN TRAVEL. RUNNING SLOPE OF FLARE IS PARALLEL TO BACK OF CURB.
(b) CROSS SLOPE IS PERPENDICULAR TO DIRECTION OF PEDESTRIAN TRAVEL.

SLOPE TABLE



MATERIALS

6 / C501 ADA PARALLEL RAMP
NOT TO SCALE

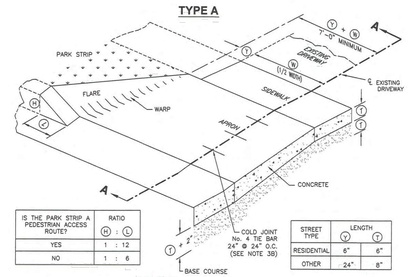
Flare driveway approach

1. **GENERAL**
   - A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER's discretion.
   - B. Field Changes to Slope Requirements:
     1) Grades may have a 6 percent change in slope over a 11 feet wheel base run for both crest or sag vertical curves.
     2) Where heavy truck use and fire truck access applies, or to improve design speed, design grades should be cut in half.
     3) Specific uses or site conditions may require profile design submittal for review and acceptance.
   - C. Additional requirements are specified in APWA Section 32 16 13..

2. **PRODUCTS**
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73..
   - C. Concrete: Class 4000, APWA Section 03 30 04. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
   - D. Reinforcement: Galvanized or epoxy coated, deformed, 60 ksi yield grade steel, ASTM A615.
   - E. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

3. **EXECUTION**
   - A. Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   - B. Reinforcement: Not required if driveway apron is constructed without a cold joint.
   - C. Concrete Placement: APWA Section 03 30 10.
     1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface.
     2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Maximum length to width ratio for non-square panels is 1.5 to 1. Maximum panel length (in feet) is 1.5 times the slab thickness (in inches).
     3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   - D. Protection and Repair: Protect concrete from deicing chemicals during cure. Repair construction that does not drain. If necessary, fill flow-line with water to verify.

TYPE A



IS THE PARK STRIP A PEDESTRIAN ACCESS ROUTE?	RATIO H : L
YES	1 : 12
NO	1 : 6

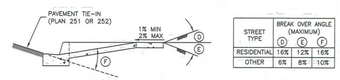
STREET TYPE	LENGTH Y	T
RESIDENTIAL	6"	6"
OTHER	24"	8"

OBLIQUE



STREET TYPE	BREAK OVER ANGLE (MAXIMUM) A	B	C
RESIDENTIAL	16%	12%	16%
OTHER	6%	8%	10%

SECTION A-A - APPROACH REQUIRING SERVICE TRUCK ACCESS



STREET TYPE	BREAK OVER ANGLE (MAXIMUM) G	E	F
RESIDENTIAL	16%	12%	16%
OTHER	6%	8%	10%

SECTION A-A - TYPICAL DRIVEWAY APPROACH

5 / C501 DRIVEWAY APPROACH
NOT TO SCALE

civilsolutionsgroup inc.
CACHE VALLEY | P: 435.213.3762
SALT LAKE | P: 801.216.3192
UTAH VALLEY | P: 801.874.1432
info@civilsolutionsgroup.net
www.civilsolutionsgroup.net

GODFREY DENTIST OFFICE
340 W & 3200 S
NIBLEY, UT, 84321

MARK	DATE:	DESCRIPTION:

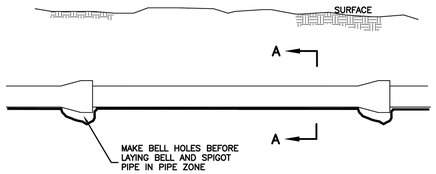
PROJECT #: 24-256
DRAWN BY: C. SCHAFFNER
PROJECT MANAGER: M. TAYLOR
ISSUED: 1/17/2025

PROFESSIONAL ENGINEER
7/22/2024
No. 8343188-2202
MICHAEL E. TAYLOR
STATE OF UTAH

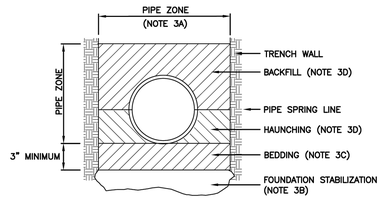
DETAILS

C501

P:\2024\24-256 Ironwood Ridgeline Commercial\Civil\AutoCAD\Sheet Set\DETAILS



ELEVATION VIEW



SECTION A–A

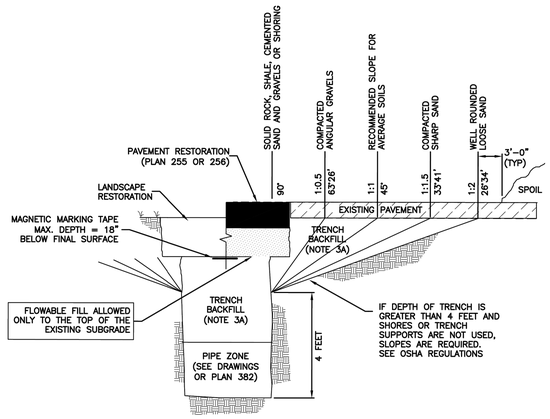
INSTALLATION

CONCRETE PIPE: FOLLOW ASTM C 1479
"STANDARD PRACTICE FOR INSTALLATION OF PRECAST CONCRETE SEWER, STORM DRAIN, AND CULVERT PIPE USING STANDARD INSTALLATIONS.

PVC AND HDPE PIPE: FOLLOW ASTM D 2321
"STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS"

CORRUGATED METAL PIPE: FOLLOW ASTM A 798
"STANDARD PRACTICE FOR INSTALLING FACOTRY-MADE CORRUGATED STEEL PIPE FOR SEWERS AND OTHER APPLICATIONS.

VITRIFIED CLAY PIPE: FOLLOW ASTM C 12.
"STANDARD RECOMMENDED PRACTICE FOR INSTALLING VITRIFIED CLAY PIPE LINES.



1 / C502 UTILITY TRENCHING DETAIL
NOT TO SCALE

Pipe zone backfill

1. **GENERAL**
   A. Install the pipe in the center of the trench or no closer than 6-inches from the wall of the pipe to the wall of the trench.

2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Concrete: APWA Section 03 30 04.
   D. Flowable Fill: Target is 60 psi in 28 days with 90 psi maximum in 28 days, APWA Section 31 05 15. It must flow easily requiring no vibration for consolidation.
   E. Stabilization-Separation Geotextile: Moderate or high at CONTRACTOR's choice, APWA Section 31 05 19.

3. **EXECUTION**
   A. Excavate the Pipe Zone: Width is measured at the pipe spring line and includes any necessary sheathing. Provide width recommended by pipe manufacturer. Follow manufacturer's recommendations when using trench boxes.
   B. Foundation Stabilization: Get ENGINEER's permission before installing common fill. Vibrate to stabilize. Installation of stabilization-separation geotextile will be required to separate backfill material and native subgrade materials if common fill cannot provide a working surface or prevent soils migration.
   C. Base Course:
      1) Furnish untreated base course material unless specified otherwise by pipe manufacturer.
      2) Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
      3) When using concrete, provide at least Class 2,000 per APWA Section 03 30 04.
   D. Pipe Zone: DO NOT USE sewer rock, pea gravel, or recycled RAP aggregate in the pipe zone. Water jetting is NOT allowed.
      1) Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26 unless pipe manufacturer requires more stringent installation.
      2) Submission of quality control compaction test result data developed for the haunch zone may be requested by ENGINEER at any time. CONTRACTOR is to provide results of tests immediately upon request.
   E. Flowable Fill (when required and if allowed by pipe manufacturer):
      1) Place the controlled low strength material, APWA Section 31 05 15.
      2) Prevent pipe flotation by installing in lifts and providing pipe restraints as required by pipe manufacturer.
      3) Reset pipe to line and grade if pipe "floats" out of position.

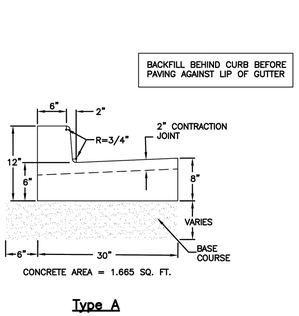
* Per Nibley City amendment does not flowable fill without written prior approval by Public Works Director .

1. **GENERAL**
   A. The drawing applies to backfilling the trench above the pipe zone.

2. **PRODUCTS**
   A. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 3-inches.
   B. Flowable Fill: Target is 60 psi in 28 days with 90 psi maximum in 28 days, APWA Section 31 05 15. It must flow easily requiring no vibration for consolidation.

3. **EXECUTION**
   A. Trench Backfill:
      1) DO NOT USE sewer rock, pea gravel, or recycled RAP aggregate as trench backfill.
      2) Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.
      3) Water jetting is NOT allowed.
      4) Submission of quality control compaction test result data developed for haunching areas may be requested by ENGINEER at any time. Provide results of tests immediately upon request.
   B. Flowable Fill: When required, place controlled low strength material in the trench, APWA Section 31 05 15. Cure the fill before placing surface restorations.
   C. Surface Restoration:
      1) Landscaped Surface: Rake to match existing grade. Replace vegetation to match pre-construction conditions. Follow APWA Section 32 92 00 (turf or grass) or APWA Section 32 93 13 (ground cover) requirements.
      2) Paved Surface: Do not install asphalt or concrete surfacing until trench compaction is acceptable to ENGINEER. Follow APWA Section 33 05 25 (asphalt surfacing), or APWA Section 33 05 25 (concrete surfacing).

* Per Nibley City amendment does not flowable fill without written prior approval by Public Works Director .



Type A

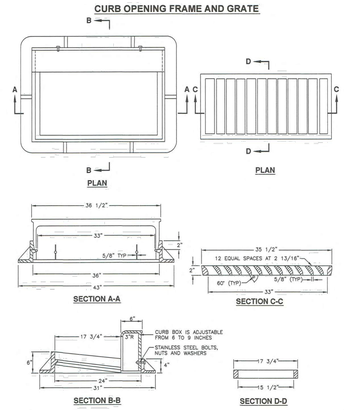
3 / C502 CATCH CURB & GUTTER
NOT TO SCALE

35 1/2" Grate and frame

1. **GENERAL**
   A. The grate and frame fits concrete boxes in Plan 315.

2. **PRODUCTS**
   A. Castings: Grey iron class 35 minimum per ASTM A48, coated with asphalt based paint or better.
   B. Bolts, Nuts, Washers, Accessories: Stainless steel, APWA Section 05 05 23.

3. **EXECUTION** (Not used)



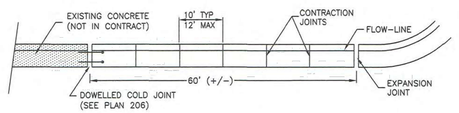
2 / C502 2X3 CATCH BASIN
NOT TO SCALE

Curb and gutter

1. **GENERAL**
   A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER's discretion.
   B. Additional requirements are specified in APWA Section 32 16 13.

2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73.
   C. Concrete: Class 4000, APWA Section 03 30 04. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
   D. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

3. **EXECUTION**
   A. Base Course Placement: APWA Section 32 05 10. Thickness is 6-inches if flow-line grade is 0.5 percent (s=0.005) or greater. If slope is less, provide 8-inches. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   B. Concrete Placement: APWA Section 03 30 10.
      1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface. Install at the start or end of a street intersection curb return. Expansion joints are not required in concrete placement using slip-form construction.
      2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Match joint location in adjacent Portland-cement concrete roadway pavement.
      3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   C. Protection and Repair: Protect concrete from deicing chemicals during cure. Repair construction that does not drain. If necessary, fill flow-line with water to verify.



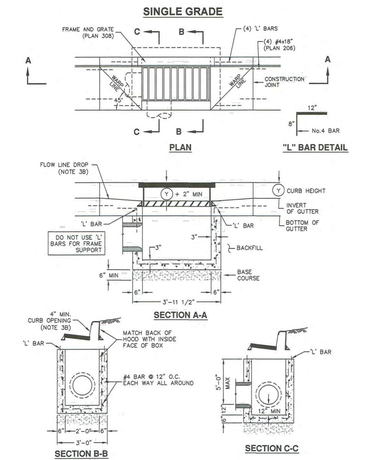
JOINT DETAIL

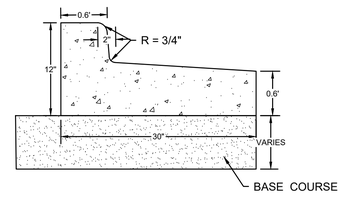
Catch basin

1. **GENERAL**
   A. The drawing shows typical pipe connections. Refer to construction drawings for connection locations or refer to field location of existing piping when engineering pipe connection to the box.

2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Concrete: Class 4000, APWA Section 03 30 04.
   D. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.

3. **EXECUTION**
   A. Base Course Placement: APWA Section 32 11 23. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   B. Curb Face Opening: Make opening at least 4-inches high. Provide at least a 2-inch drop between the "warp line" in the gutter flow-line and the top of the grate at the curb face opening.
   C. Concrete Placement: APWA Section 03 30 10. Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   D. Backfill: Place backfill against the basin wall. Pea gravel and recycled RAP aggregate is NOT ALLOWED. Water jetting is NOT allowed. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.





4 / C502 2.5' SPILL CURB & GUTTER
NOT TO SCALE

civilsolutionsgroup inc.
CACHE VALLEY | P: 435.213.3762
SALT LAKE | P: 801.216.3192
UTAH VALLEY | P: 801.874.1432
info@civilsolutionsgroup.net
www.civilsolutionsgroup.net

GODFREY DENTIST OFFICE
340 W & 3200 S
NIBLEY, UT, 84321

MARK	DATE:	DESCRIPTION:

PROJECT #: 24-256
DRAWN BY: C. SCHAFFNER
PROJECT MANAGER: M. TAYLOR
ISSUED: 1/17/2025

PROFESSIONAL ENGINEER
7/22/2024
No. 8263185-2202
MICHAEL E. TAYLOR
STATE OF UTAH

DETAILS

C502

P:\2024\24-256 Ironwood Ridgeline Commercial\Civil\AutoCAD\Sheet Set\DETAILS

GODFREY DENTAL

168 E 200 N

LOGAN, UTAH

STRUCTURAL NOTES:

A. DESIGN LOADS AND CRITERIA

1. INTERNATIONAL BUILDING CODE (IBC) 2021 EDITION
2. GRAVITY LOADS (PSF):

LOCATION	DEAD LOAD	LIVE OR SNOW LOAD	TOTAL LOAD
1ST FLOOR / STAIRS	15	100	115
ROOF	17	31	48

3. WIND CRITERIA:
   - WIND SPEED: 115 MPH (3 SECOND GUST)
   - EXPOSURE: B
   - IMPORTANCE, I: 1.0
4. SEISMIC CRITERIA:
   - RISK CATEGORY: II
   - DESIGN CATEGORY: D
   - Sds: .85
   - Sd1: .36
   - SITE CLASS: D
   - IMPORTANCE, I: 1.0
   - RESPONSE, R: 6.5 (OSB)
5. SOIL BEARING PRESSURE: 1500 PSF ON UNDISTURBED SOIL
6. LATERAL SOIL PRESSURE: 35 PCF EQUIVALENT FLUID PRESSURE
7. FROST DEPTH BELOW GRADE: 36 INCHES

B. FOUNDATIONS

1. FOUNDATIONS HAVE BEEN DESIGN FOLLOWING RECOMMENDATIONS PRESENTED IN IBC SECTION 1804. INSTALL THE FOUNDATION AND FLOOR SLABS ACCORDING TO IBC RECOMMENDATIONS.
2. PLACE FOOTING ON UNDISTURBED NATURAL SOILS OR ENGINEERED FILL PLACED OVER UNDISTURBED NATURAL SOILS. FILL SHALL BE APPROVED BY A SOILS ENGINEER. PLACE FILL IN UNIFORM LIFTS (8" MAX.) AND COMPACT TO 95% STANDARD PROCTOR ACCORDING TO ASTM D1557.
3. ENGINEERED FILL SHALL BE SELECTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
4. EXISTING FILL, IF ENCOUNTERED, SHALL BE REMOVED AND REPLACED WITH ENGINEERED FILL.
5. PLACE INTERIOR SLABS ON GRADE ON 4" OF ¾" MINUS GRANULAR FILL OVER A VAPOR RETARDER.
6. PROTECT SOILS BENEATH SLABS AND FOOTING FROM FREEZING.
7. PROVIDE POSITIVE DRAINAGE AWAY FROM THE STRUCTURE AVOID EXCESSIVE WETTING OR DRYING OF FOUNDATION EXCAVATIONS.

C. CONCRETE

1. PERFORM CONCRETE WORK IN ACCORDANCE WITH THE ACI "STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE" UNLESS NOTED OTHERWISE
2. ASTM C150 TYPE I/II CEMENT
3. MINIMUM CEMENT CONTENT: 450 #/YD
4. ENTRAINED AIR: 5% (+/- 1 1/2%) AT ALL CONCRETE EXPOSED TO FREEZING (EXT. SLABS, FND. WALLS, ETC.)
5. MAXIMUM SLUMP: 4" (WITHOUT SUPERPLASTICSIZER)
6. 28 DAY STRENGTH: f'c: 3500 PSI
7. NORMAL WEIGHT AGGREGATE, 1 1/2" MAX FOOTINGS, 3/4" MAX ELSEWHERE
8. WHERE TOP SURFACES OF CONCRETE SLABS ARE SHOWN TO BE RECESSED MORE THAN 1/2", THICKEN SLAB TO MAINTAIN INDICATED SLAB THICKNESS.
9. SLAB JOINTS ARE INDICATED ON THE DRAWINGS. CONSTRUCTION JOINTS MAY, AT CONTRACTOR'S OPTION, BE SUBSTITUTED FOR CONTRACTION JOINTS.
10. DO NOT USE CHLORIDE ADMIXTURES IN CONCRETE.
11. REINFORCING BARS: ASTM A615, GRADE 60
    ASTM A706, GRADE 60 (WHERE INDICATED TO BE WELDED)
12. DETAIL REINFORCING BARS ACCORDING TO LATEST EDITION OF ACI DETAILING MANUAL.
13. MINIMUM REINFORCING BAR COVER:
    - 3" AT UNFORMED SURFACES EXPOSED TO EARTH
    - 1 1/2" AT FORMED SURFACES EXPOSED TO EARTH OR WEATHER
    - 3/4" AT SLABS AND AT WALLS NOT EXPOSED TO EARTH OR WEATHER
14. LAP REINFORCING BARS ACCORDING TO THE FOLLOWING, UNLESS INDICATED OTHERWISE:

BAR SIZE	LAP LENGTH
#3	1'-6"
#4	2'-0"
#5	2'-6"
#6	3'-0"

15. SPLICE TOP BARS IN GRADE BEAMS NEAR MIDSPAN. BOTTOM BARS NEAR SUPPORTS.
16. WELDING OF REINFORCING BARS IS NOT PERMITTED UNLESS SPECIFICALLY DETAILED.
17. REINFORCE OPENING HEADS, JAMBS & SILLS WITH (2) #5 BAR, EXTEND EACH END OF EACH BAR 2'-6 PAST OPENING EDGE.
18. WELDED WIRE FABRIC: ASTM A185
19. REINFORCE CONCRETE SLABS ON DECK WITH 13x13-D5xDF. PLACE WWF 1 1/2" BELOW TOP OF SLAB USING METAL POSITIONER DEVICES. LAP WWF ONE FULL MESH AT SPLICES.
20. TIE DOWELS IN PLACE BEFORE PLACING CONCRETE. DO NOT STAB OR WET-SET DOWELS.
21. REINFORCING FIBERS: ASTM C1116, FIBRILLATED POLYPROPYLENE
22. ANCHOR BOLTS: ASTM A307 OR A36
23. EXPANSION ANCHORS: HILTI "QUICK BOLT II" OR EQUIVALENT
24. ADHESIVE: SIMPSON "SET" OR EQUIVALENT
25. GROUT FOR BASEPLATES: ASTM C827, NON-METALLIC, NON-SHRINK, 3 DAY 4000 PSI

D. WOOD

1. DIMENSION LUMBER(GRADED BY WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) OR WEST COAST LUMBER INSPECTION BUREAU (WCLIB):
   - 1.1. STUDS: DOUG FIR LARCH STUD GRADE OR BETTER
   - 1.2. JOISTS: DOUG FIR LARCH NO.2 OR BETTER
2. ALL NAILS SPECIFIED ARE TO BE COMMON WIRE NAILS, UNLESS NOTED OTHERWISE.
3. SPLICE DOUBLE TOP PLATE AT 8'-0" MINIMUM ON CENTER USING (18) 16d NAILS EACH SIDE OF THE SPLICE.
4. PROVIDE HEADERS FOR OPENINGS IN WALLS ACCORDING TO THE FRAMING PLAN
5. FRAMING CONNECTORS, ANCHORS, AND HANGERS SHOWN ON THE DRAWINGS ARE THE PRODUCTS OF SIMPSON STRONG-TIE COMPANY (OR EQUIVALENT), SAN LEANDRO, CALIFORNIA AND ARE DESIGNATED BY MANUFACTURER'S STANDARD PRODUCT NUMBERS. FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION AND USE.
6. WALL SHEATHING: 7/16" APA RATED SHEATHING, PANEL RATING 24/16, ATTACH WITH 16 GAUGE X 1 1/2" STAPLES AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING, U.N.O. ALL PANEL EDGES SHALL BE BLOCKED.
7. ROOF SHEATHING: 7/16" APA RATED SHEATHING, PANEL RATING 24/16, ATTACH WITH 8d NAILS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING, U.N.O.
8. FLOOR SHEATHING: 7/8" APA RATED T&G SHEATHING, PANEL RATING 48/24, ATTACH WITH 10d NAILS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING, U.N.O.
9. PROVIDE 1/8" GAP AT CONSTRUCTION PANEL BUTT JOINTS
10. GLUED LAMINATED TIMBERS: ANSI/AITC A190.1, 24F-V8 DF/DF U.N.O.
11. ENGINEERED WOOD PRODUCTS (WOOD I-JOISTS, WOOD & METAL OPEN-WEB JOISTS, LAMINATED VENEER LUMBER, AND PARALLEL-STRAND LUMBER) SHOWN ON THE DRAWINGS ARE THE PRODUCTS OF WEYERHAUSER (OR EQUIVALENT) AND ARE DESIGNATED BY THE MANUFACTURER'S STANDARD PRODUCT NUMBERS. THE INTENT OF THE DESIGN IS FOR THESE ITEMS TO BE ATTACHED TO EACH OTHER AND TO THE SURROUNDING STRUCTURE TO BEHAVE AS A SYSTEM. WHETHER SHOWN OR NOT, PROVIDE ACCESSORY ITEMS (BLOCKS, CLIPS, STIFFENERS, STRAPS, ETC.), DESIGNED BY THE MANUFACTURER, FOR A COMPLETE SYSTEM, FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION AND USE.
    - 11.1. FABRICATED WOOD JOISTS:ASTM D2559
    - 11.2. LAMINATED VENEER LUMBER: ASTM D2559
      - Fb: 2900 PSI
      - Fv: 285 PSI
      - Fc: 2750 PSI
      - E: 1.9E6 PSI
    - 11.3 PARALLEL STRAND LUMBER: ASTM D2559
      - Fb: 2900 PSI
      - Fv: 290 PSI
      - Fc: 2900 PSI
      - E: 2.0E6 PSI
12. PREFABRICATED WOOD TRUSSES SHALL CONFORM TO THE TRUSS PLATE INSTITUTE DESIGN SPECIFICATION FOR METAL-PLATE-CONNECTED WOOD TRUSSES.
    - 12.1. TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT ALL INDICATED LOADS. TRUSS LOADING:
      - TOP CHORD DL: 7 PSF
      - TOP CHORD LL: 25 PSF
      - BOTTOM CHORD DL: 10 PSF
      - BOTTOM CHORD LL: 10 PSF (DOES NOT ACT CONCURENT WITH TOP CHORD LL)
    - 12.2. MEMBER PROPERTIES: CHORDS SHALL BE #2 DOUG FIR LARCH OR BETTER; WEBS SHALL HAVE MINIMUM MODULUS OF ELASTICITY OF 1,500,000 PSI
    - 12.3. ALL TRUSS BLOCKING SHALL BE PROVIDED BY TRUSS MANUFACTURER AND CONSTRUCTED WITH APPROVED PLATES.
    - 12.4. TRUSS PROFILES SHOWN ARE REPRESENTATIONS OF POSSIBLE CONFIGURATIONS OF WEB LOCATIONS AND MEMBER SIZES. TRUSS MANUFACTURE SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL. ALL TRUSSES SHALL BE STAMPED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE THE PROJECT RESIDES IN.
    - 12.5. TRUSS MANUFACTURER SHALL PROVIDE PROOF OF THIRD PARTY INSPECTION AS REQUIRED BY IBC SECTION 2303.4.
    - 12.6. IN ADDITION TO LOADS SPECIFIED ELSEWHERE, DESIGN PREFABRICATED WOOD TRUSS BOTTOM CHORDS FOR 10 PSF DEAD LOAD
    - 12.7. DRILL LAG BOLT LEAD HOLES TO MATCH THE LAG BOLT SHANK DIAMETER AND HALF THE SHANK DIAMETER FOR THE THREADED PORTION.

E. MISCELLANEOUS

1. ELEVATIONS REFERENCE MAIN FLOOR ELEVATION, SET AT 0'-0".
2. COORDINATE OPENINGS AND EMBEDDED ITEMS NOTED ON ALL CONSTRUCTION DOCUMENTS WITH APPROPRIATE TRADES.
3. BEFORE FABRICATION, HAVE SHOP DRAWINGS REVIEWED BY ARCHITECT AND/OR ENGINEER.
4. TEMPORARILY BRACE THE STRUCTURE TO RESIST ALL LOADS OR COMBINATIONS OF LOADS UNTIL ALL PERMANENT ELEMENTS ARE IN PLACE AND ALL CONNECTIONS ARE COMPLETE.

MATERIAL PROPERTIES

ALL BUILDING MATERIALS MUST MEET THE FOLLOWING MINIMUM PROPERTIES UNLESS NOTED OTHERWISE ON PLAN OR STRUCTURAL NOTES:

DOUGLAS FIR-LARCH ("DF" OR "DF-L" ON PLAN) 2"-4" WIDE, PSI (SEE 2018 NDS SUPPLIMENT)

GRADE	Fb	Ft	Fv	Fc Perp	Fc	E min	E
DF-L SS	1500	1000	180	625	1700	690000	1900000
DF-L #1&Btr	1200	800	180	625	1550	660000	1800000
DL-L #1	1000	675	180	625	1500	620000	1700000
DF-L #2	900	575	180	625	1350	580000	1600000

DOUGLAS FIR-LARCH ("DF" OR "DF-L" ON PLAN) 5"+WIDE, PSI (SEE 2018 NDS SUPPLIMENT)

	GRADE	Fb	Ft	Fv	Fc Perp	Fc	E min	E
BEAMS & STRINGERS	DF-L SS	1600	950	170	625	1100	580000	1600000
	DF-L #1 DENSE	1550	775	170	730	1100	620000	1700000
	DL-L #1	1300	675	170	625	925	580000	1600000
	DF-L #2	875	425	170	625	600	470000	1300000
POSTS & TIMBERS	GRADE	Fb	Ft	Fv	Fc Perp	Fc	E min	E
	DF-L SS	1500	1000	170	625	1150	580000	1600000
	DF-L #1 DENSE	1400	950	170	730	1200	620000	1700000
	DL-L #1	1200	825	170	625	1000	580000	1600000
	DF-L #2	750	475	170	625	700	470000	1300000

ALL SAWN LUMBER IS ASSUMED TO BE DF #2 UN LESS NOTED OTHERWISE ON PLAN

LAMINATED VENEER LUMBER ("LVL" ON PLAN), PSI

GRADE	Fb	Ft	Fv	Fc Perp	Fc	E min	E
2.0E-2800	2800	1950	285	750	3000	1016535	2000000
2.0E-3100	3100	1950	285	750	3000	1016535	2000000
2.0E-2600	2600	1895	285	750	2510	1016535	2000000
1.7E-2650	2650	1500	285	750	3000	900000	1700000
1.7E-2400	2400	1500	285	750	3000	900000	1700000
1.4E-1800	1800	1100	285	525	2500	700000	1400000

ALL LVL USED FOR BEAMS SHALL BE MIN. 2.0E-2600 OR BETTER U.N.O. ON PLAN

PARALLEL STRAND LUMBER ("PSL" ON PLAN), PSI

GRADE	Fb	Ft	Fv	Fc Perp	Fc	E min	E
1.8E	2400	1995	190	545	2500	914880	1800000
2.0E	2900	2300	290	625	2900	1016535	2000000

LAMINATED STRAND LUMBER ("LSL" ON PLAN), PSI

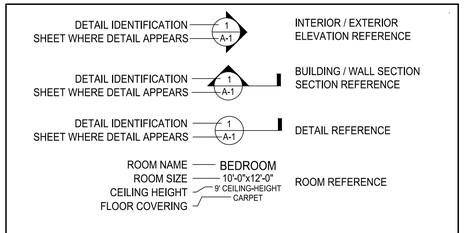
GRADE	Fb	Ft	Fv	Fc Perp	Fc	E min	E
1.3E	1700	1300	425	710	1835	660750	1300000
1.3E (PLANK)	1900	1300	150	670	1835	660750	1300000
1.55E	2325	1290	265	900	2170	787815	1550000

LSL USED FOR STUDS SHALL BE 1.55E GRADE MIN.

GLUE LAMINATED TIMBER (GLB OR GLULAM), PSI (SEE 2018 NDS SUPPLIMENT)

GRADE	Fb	Ft	Fv	Fc Perp	Fc	E min	E
24F-V4-1.8E	2400	1100	265	650	1650	950000	1800000
	-1850 FOR NEGATIVE BENDING						

SYMBOL NOTES:



GENERAL PLAN NOTES:

CONTRACTOR IS TO VERIFY ALL DIMENSIONS AT JOBSITE PRIOR TO PROCEEDING WITH THE WORK. ANY DISCREPANCIES FOUND SHALL BE REPORTED TO PERFORMANCE ENGINEERS FOR EVALUATION. BEGINNING WORK WITHOUT PROPERLY VERIFYING DIMENSIONS SHALL BE AT THE SOLE RISK OF THE CONTRACTOR.

DIMENSIONS SHOWN DO NOT INCLUDE THE THICKNESS OF ANY APPLIED FINISH MATERIALS. DIMENSIONS ARE EITHER TO FACE OF STUD, FACE OF MASONRY, OR CENTERLINE OF OPENINGS OR STRUCTURE.

ALL INFORMATION CONTAINED WITHIN THESE DRAWINGS AND ARE INTENDED TO MEET OR EXCEED 2021 IBC. ALL DESIGN CRITERIA NOT SHOWN ON THESE PLANS ARE TO CONFORM TO THE 2021 IBC.

ALL WORK SHALL CONFORM TO ALL LOCAL, STATE AND NATIONAL CODES.

THE CONTRACTOR IS RESPONSIBLE FOR ALL FEES, PERMITS AND INSPECTIONS AS REQUIRED BY GOVERNING AGENCY.

ALL CONSTRUCTION DEBRIS IS TO BE CONTAINED NEATLY ON SITE UNTIL DISPOSED OF.

SHEET INDEX:

S0.0 COVER SHEET
S0.1 SPECIAL INSPECTION / CONNECTIONS
S1.0 FOUNDATION PLAN
S2.0 SHEAR/HEADER PLAN
S3.0 UPPER LEVEL FRAMING PLAN
S3.1 UPPER LEVEL SHEAR/HEADER PLAN
S4.0 ROOF FRAMING PLAN
SD1.0 FOUNDATION DETAILS
SD2.0 FRAMING DETAILS

ABBREVIATIONS:

A/C	AIR CONDITIONER
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BOT	BOTTOM
BRG	BEARING
BTWN	BETWEEN
CL	CENTERLINE
CANT	CANTILEVER
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CO	CASED OPENING
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION/CONNECTOR
CONT	CONTINUE/CONTINUOUS
CONTR JT	CONTRACTION JOINT
COV'D	COVERED
DF	DOUGLAS FIR
DBL	DOUBLE
EA	EACH
ELEV	ELEVATION
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
FDN	FOUNDATION
FIN	FINISHED
FLR	FLOOR
FTG	FOOTING
FUR	FURNACE
FX	FIXED
GLB	GLULAM BEAM
HDR	HEADER
HORIZ	HORIZONTAL
LONG	LONGITUDINAL
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENEER LUMBER
MIN	MINIMUM
OC	ON CENTER
OSB	ORIENTED STRAND BOARD
PAR	PARALLEL
PE	PRE-ENGINEERED
PED	PEDESTAL
PERP	PERPENDICULAR
PSL	PARALLEL STRAND LUMBER
PT	PRESSURE TREATED
REINF	REINFORCEMENT/REINFORCING
REF	REFRIGERATOR
REQD	REQUIRED
RI	ROUGH IN
SL	SLIDING
SH	SINGLE HUNG
STD	STANDARD
STIFF	STIFFENER
T&G	TONGUE AND GROOVE
TO	TOP OF
TRANS	TRANSOM
TYP	TYPICAL
VERT	VERTICAL
W/	WITH
W/H	WATER HEATER
WS	WATER SOFTENER
W/O	WITHOUT

NOTE: THIS IS A STANDARD LIST. SOME OF THE LISTED ABBREVIATIONS MAY NOT APPEAR IN THE DRAWINGS FOR THIS PROJECT.

THIS PLAN FOR BASIS OF IDEAS IS THE PROPERTY OF PERFORMANCE ENGINEERS. ANY FORM OF DUPLICATING OR USE OF ALL OR ANY PLANS, DRAWINGS AND DESIGNS IS PROHIBITED.
© COPYRIGHT 2024

PERFORMANCE ENGINEERS
An InteFrame Company
1102 N. FRANKLIN BLVD.
NAMPA, IDAHO 83687
PH. (208) 475-0040
FAX (208) 498-4241

REV	DATE	DESCRIPTION	BY

168 E 200 N
GODFREY DENTAL
IRONWOOD CONSTRUCTION
COVER SHEET
LOGAN UTAH

PROFESSIONAL ENGINEER
REGISTERED
19089
04/13/2024
STATE OF IDAHO
VANCE LEAVITT

DATE: 09/05/2024
SCALE: AS NOTED
DESIGN BY: OTHERS
DESIGN REVIEW: CRP
STRUCTURE BY: CRP
STRUCT. REVIEW: VAL
JOB NO.: 2024-1617Z

REVIEW

SHEET
S0.0

© COPYRIGHT 2024

SPECIAL INSPECTIONS

STATEMENT OF SPECIAL INSPECTIONS 2021 IBC

PROJECT NAME: _____

LOCATION: _____

THIS STATEMENT OF SPECIAL INSPECTIONS IS SUBMITTED IN FULFILLMENT OF THE REQUIREMENTS OF IBC SECTIONS 1704 AND 1705. INCLUDED ARE:

- SCHEDULE OF SPECIAL INSPECTIONS AND TESTS APPLICABLE TO THIS PROJECT:

  ■ SPECIAL INSPECTIONS PER SECTIONS 1704 AND 1705
  ☐ SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE
  ☐ SPECIAL INSPECTIONS FOR WIND RESISTANCE

- LIST OF THE TESTING AGENCIES AND OTHER SPECIAL INSPECTORS THAT WILL BE RETAINED TO CONDUCT THE TESTS AND INSPECTIONS.

SPECIAL INSPECTIONS AND TESTING WILL BE PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, THIS STATEMENT AND IBC SECTIONS 1704, 1705, 1707, AND 1708.

THE SCHEDULE OF SPECIAL INSPECTIONS SUMMARIZES THE SPECIAL INSPECTIONS AND TESTS REQUIRED. SPECIAL INSPECTORS WILL REFER TO THE APPROVED PLANS AND SPECIFICATIONS FOR DETAILED SPECIAL INSPECTION REQUIREMENTS. ANY ADDITIONAL TESTS AND INSPECTIONS REQUIRED BY THE APPROVED PLANS AND SPECIFICATIONS WILL ALSO BE PERFORMED.

INTERIM REPORTS WILL BE SUBMITTED TO THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH IBC SECTION 1704.1.2

A FINAL REPORT OF SPECIAL INSPECTIONS DOCUMENTING REQUIRED SPECIAL INSPECTIONS, TESTING AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED PRIOR TO ISSUANCE OF A CERTIFICATE OF USE AND OCCUPANCY (SECTION 1704.1.2). THE FINAL REPORT WILL DOCUMENT:

- REQUIRED SPECIAL INSPECTIONS.
- CORRECTION OF DISCREPANCIES NOTED IN INSPECTIONS.

THE OWNER RECOGNIZES HIS OR HER OBLIGATION TO ENSURE THAT THE CONSTRUCTION COMPLIES WITH THE APPROVED PERMIT DOCUMENTS AND TO IMPLEMENT THIS PROGRAM OF SPECIAL INSPECTIONS. IN PARTIAL FULFILLMENT OF THESE OBLIGATIONS, THE OWNER WILL RETAIN AND DIRECTLY PAY FOR THE SPECIAL INSPECTIONS AS REQUIRED IN IBC SECTION 1704.1.

THIS PLAN HAS BEEN DEVELOPED WITH THE UNDERSTANDING THAT THE BUILDING OFFICIAL WILL:

- REVIEW AND APPROVE THE QUALIFICATIONS OF THE SPECIAL INSPECTORS WHO WILL PERFORM THE INSPECTIONS.
- MONITOR SPECIAL INSPECTION ACTIVITIES ON THE JOB SITE TO ASSURE THAT THE SPECIAL INSPECTORS ARE QUALIFIED AND ARE PERFORMING THEIR DUTIES AS CALLED FOR IN THIS STATEMENT OF SPECIAL INSPECTION.
- REVIEW SUBMITTED INSPECTION REPORTS.
- PERFORM INSPECTIONS AS REQUIRED BY THE LOCAL BUILDING CODE.

PREPARED BY:

VANCE LEAVITT, P.E.

OWNER: BUILDING OFFICIAL:

SIGNATURE: SIGNATURE:

DATE: DATE:

SCHEDULE INSPECTION, TESTING AGENCIES, AND INSPECTORS

RESPONSIBILITY	FIRM	ADDRESS, TELEPHONE, EMAIL
1. SPECIAL INSPECTION (EXCEPT FOR GEOTECHNICAL)		
2. MATERIAL TESTING		
3. GEOTECHNICAL INSPECTIONS		

SCHEDULE OF SPECIAL INSPECTION

APPLICABLE TESTS AND INSPECTIONS ARE INDICATED BELOW WITH A SOLID FILLED RECTANGLE "■":

APPLIES	VERIFICATION AND INSPECTION	C	P	NOTES
	SECTION 1705.2.1 - STRUCTURAL STEEL			
☐	SPECIAL INSPECTION FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360.			
	TABLE 1705.3 - CONCRETE			
☐	1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT	--	X	
☐	2. INSPECTION OF REINFORCING STEEL, WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 2B	--	--	
☐	3. INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED	X	--	
■	4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS	--	X	
☐	5. VERIFYING USE OF REQUIRED DESIGN MIX	--	X	
☐	6. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X	--	
☐	7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	--	
☐	8. INSPECTION OF MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	--	X	
☐	9. INSPECTION OF PRE-STRESSED CONCRETE: A. APPLICATION OF PRESTRESSING FORCES B. GROUTING OF BOUNDED PRESTRESSING TENDONS IN THE SEISMIC FORCE-RESISTING SYSTEM	X X	-- --	
☐	10. ERECTION OF PRECAST CONCRETE MEMBERS	--	X	
☐	11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	--	X	
☐	12. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	--	X	

	TABLE 1705.6 - SOILS			
☐	1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	--	X	
☐	2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	--	X	
☐	3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	--	X	
☐	4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	X	--	
☐	4. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PERPARED PROPERLY	--	X	
	TABLE 1704,5.1 - LEVEL 1 MASONRY			
☐	1. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED	--	X	
☐	2. VERIFICATION OF f'_m AND f_{AAC} PRIOR TO CONSTRUCTION EXCEPT WHERE SPECIFICALLY EXEMPTED BY THIS CODE	--	X	
☐	3. VERIFICATION OF SLUMP FLOW AND VSI AS DELIVERED TO THE SITE FOR SELF-CONSOLIDATING GROUT	--	X	
☐	4. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE: A. PROPOTIONS OF SITE PREPARED MORTAR B. CONSTRUCTION OF MORTAR JOINTS C. LOCATION OF REINFORCEMENT, CONNECTIONS, PRESTRESSING TENDONS AND ANCHORAGES D. PRESTRESSING TECHNIQUE E. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES	-- -- -- -- --	X X X X X	
☐	5. DURING CONSTRUCTION THE INSPECTION PROGRAM SHALL VERIFY: A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS B. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS FRAMES OR OTHER CONSTRUCTION C. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT, ANCHOR BOLTS, PRESTRESSING TENDONS AND ANCHORAGES D. WELDING OF REINFORCING BARS E. PREPARATION, CONSTRUCTION AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F) F. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	-- -- X -- X	X X -- X --	
☐	6. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE: A. GROUT SPACE IS CLEAN B. PLACEMENT OF REINFORCEMENT AND CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES C. PROPORTIONS OF SITE PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS D. CONSTRUCTION OF MOTOR JOINTS	-- -- -- --	X X X X	
☐	7. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE: A. GROUTING OF PRESTRESSING BONDED TENDONS	X	--	
☐	8. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED	--	X	
	TABLE 1704.5.3 - LEVEL 2 MASONRY			
☐	1. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS	--	X	
☐	2. VERIFICATION OF f'_m AND f_{AAC} PRIOR TO CONSTRUCTION AND FOR EVERY 5,000 SQUARE FEET DURING CONSTRUCTION	--	X	
☐	3. VERIFICATION OF PROPORTIONS OF MATERIALS IN PREMIXED OR PREBLENDED MORTAR AND GROUT AS DELIVERED TO THE SIRE	--	X	
☐	4. VERIFICATION OF SLUMP FLOW AND VSI AS DELIVERED TO THE SIRE FOR SELF- CONSOLIDATING GROUT	X	--	
☐	5. THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE: A. PROPORTIONS OF SITE-PREPARED MORTAR, GROUT AND PRESTRESSING GROUT FOR TENDONS B. PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS C. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES D. GROUT SPACE PRIOR TO GROUT E. PLACEMENT OF GROUT F. PLACEMENT OF PRESTRESSING GROUT G. SIZE AND LOCATION OF STRUCTURAL ELEMENTS H. TYPE, SIZE AND LOCATION OF ANCHORS INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION I. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT, ANCHOR BOLTS, PRESTRESSING TENDONS AND ANCHORAGES J. WELDING OF REINFORCING BARS K. PREPARATION, CONSTRUCTION AND PROJECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F) L. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	-- -- -- X X X -- -- X -- X X	X X X -- -- -- X -- X -- X --	
☐	6. PREPARATION OF ANY REQUIRED GROUT SPECIMENS AND/OR PRISMS SHALL BE OBSERVED	X	--	
	SECTION 1704.2.5 - INSPECTION OF FABRICATORS			
☐	1. WHERE FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES IS BEING PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP, UNLESS THE FABRICATOR IS REGISTERED AND APPROVED TO PERFORM WITH SPECIAL INSPECTION.	X	--	

	TABLE 1704.8 - DRIVEN DEEP FOUNDATION			
☐	1. VERIFY ELEMENT MATERIALS, SIZES AND LENGTHS COMPLY WITH THE REQUIREMENTS	X	--	
☐	2. DETERMINE CAPACITIES OF TEST ELEMENTS AND CONDUCT ADDITIONAL LOAD TESTS, AS REQUIRED	X	--	
☐	3. OBSERVE DRIVING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT	X	--	
☐	4. VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM TYPE AND SIZE OF HAMMER, RECORD NUMBER OF BLOWS PER FOOT OF PENETRATION, DETERMINE REQUIRED PENETRATIONS TO ACHIEVE DESIGN CAPACITY, RECORD TIP AND BUTT ELEVATIONS AND DOCUMENT ANY DAMAGE TO FOUNDATION ELEMENT	X	--	
☐	5. FOR STEEL ELEMENTS, PERFORM ADDITIONAL INSPECTIONS IN ACCORDANCE WITH SECTION 1704.3	--	--	
☐	6. FOR CONCRETE ELEMENTS AND CONCRETE-FILLED ELEMENTS, PERFORM ASSITIONAL INSPECITIONS IN ACCORDANCE WITH SECTION 1704.4	--	--	
☐	7. FOR SPECIALTY ELEMENTS, PERFORM ADDITIONAL INSPECTIONS AS DETERMINED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE	--	--	
	TABLE 1704.8 - CAST IN PLACE DEEP FOUNDATION			
☐	1. OBSERVE DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT	X	--	
☐	2. VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM ELEMENT DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END-BEARING STRATA CAPACITY. RECORD CONCRETE OR GROUT VOLUMES	X	--	
☐	3. FOR CONCRETE ELEMENTS, PERFORM ADDITIONAL INSPECTIONS IN ACCORDANCE WITH SECTION 1704.4	--	--	
	SECTION 1705.5 - WOOD CONSTRUCTION			
☐	1. FABRICATION PROCESS OF PREFABRICATED WOOD STRUCTURAL ELEMENTS AND ASSEMBLIES	--	--	ONE TIME
☐	2. HIGH LOAD DIAPHRAGMS: A. GRADE AND THICKNESS OF WOOD STRUCTURAL PANEL SHEATHING B. NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES C. NAIL OF STAPLE DIAMETER AND LENGTH D. NUMBER OF FASTENER LINES AND SPACING BETWEEN FASTENERS	X X X --	-- -- -- X	
☐	3. METAL-PLATE-CONNECTED WOOD TRUSSES SPANNING 60 FEET OR GREATER: A. TEMPORARY INSTALLATION RESTRAINT/ BRACING AND THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE	--	X	
	SECTION 1705.1.1 - SPECIAL CASES			
	INSPECTION OF MECHANICAL ANCHORS IN CONCRETE OF MASONRY:			
☐	1. THE SPECIAL INSPECTOR MUST BE ON THE JOB SITE CONTINUOUSLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE INTEGRITY, HOLE DIMENSIONS, HOLE CLEANING PROCEDURES, ANCHOR SPACING, EDGE DISTANCES, CONCRETE THICKNESS, ANCHOR EMBEDMENT AND TIGHTENING TORQUE	X	--	
☐	2. VERIFICATION OF CONCRETE STRENGTH BY OBTAINING AND TESTING DRILLED CORES BY ASTM C42 METHODS	--	--	ONE TIME
	INSPECTION OF ADHESIVE ANCHORS IN CONCRETE OF MASONRY:			
☐	1. VERIFY HOLE DRILLING METHOD; HOLE LOCATION, DIAMETER AND DEPTH; HOLE CLEANING; ANCHORAGE ELEMENT TYPE, MATERIAL, DIAMETER AND LENGTH; ADHESIVE BRAND, TYPE AND EXPIRATION DATE; CONTINUOUS INSPECTION OF ADHESIVE MIXING AND INSTALLATION	X	--	
☐	2. VERIFICATION OF CONCRETE STRENGTH BY OBTAINING AND TESTING DRILLED CORES BY ASTM C42 METHODS	--	--	ONE TIME
☐	3. PROOF LOAD TESTING (INCLUDE TESTING INSTRUCTIONS OF THE PLANS)	--	--	DEPENDS
	SECTION 1705.11 - SEISMIC RESISTANCE			
	THE STATEMENT OF SPECIAL INSPECTION SHALL INCLUDE SEISMIC REQUIREMENTS FOR THE FOLLOWING CASES:			
☐	1. THE SEISMIC-FORCE-RESISTING SYSTEMS	--	X	
☐	2. DESIGNATED SEISMIC SYSTEMS (ONLY WHEN I>1)	--	X	
☐	3. HEATING, VENTILATING AND AIR-CONDITIONING (HVAC) DUCTWORK CONTAINING HAZARDOUS MATERIALS AND ANCHORAGE OF SUCH DUCTWORK	--	X	
☐	4. PIPING SYSTEMS AND MECHANICAL UNITS CONTAINING FLAMMABLE, COMBUSTIBLE OR HIGHLY TOXIC MATERIALS	--	X	
☐	5. ANCHORAGE OR ELECTRICAL EQUIPMENT USED FOR EMERGENCY OR STANDBY POWER SYSTEMS	--	X	
☐	6. EXTERIOR WALL PANELS AND THEIR ANCHORAGE	--	X	
☐	7. SUSPENDED CEILING SYSTEMS AND THEIR ANCHORAGE	--	X	
☐	8. ACCESS FLOORS AND THEIR ANCHORAGE	--	X	
☐	9. STEEL STORAGE RACKS AND THEIR ANCHORAGE (WHERE I=1.5)	--	X	
	SECTION 1705.10 - WIND RESISTANCE			
	THE STATEMENT OF SPECIAL INSPECTION SHALL INCLUDE WIND REQUIREMENTS FOR THE FOLLOWING CASES:			
☐	1. IN WIND EXPOSURE B AND WIND SPEEDS 120 MILES OR GREATER	X	--	
☐	2. IN WIND EXPOSURE C OR D AND WIND SPEEDS 110 MILES OR GREATER	X	--	
	SECTION 1705,10.1 & 1705.11.2 - STRUCTURAL WOOD			
☐	1. INSPECT FIELD GLUING OPERATIONS OF ELEMENTS OF THE MAIN WIND/SEISMIC-FORCE -RESISTING SYSTEM	X	--	
☐	2. INSPECT NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE MAIN WIND/SEISMIC-FORCE-RESISTING SYSTEM, INCLUDING: WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, SHEAR PANELS, HOLD DOWNS	--	X	
☐	3. SPECIAL INSPECTION IS NOT REQUIRED AT WOOD SHEAR WALLS, SHEAR PANELS AND DIAPHRAGMS WHERE THE NAIL/STAPLE SPACING OF THE SHEATHING IS 6" O.C. OR GREATER	--	--	
	SECTION 1705.10.2 & 1705.11.3 - COLD-FORMED STEEL CONSTRUCTION			
☐	1. WELDING OF ELEMENTS OF THE MAIN WIND/ SEISMIC-FORCE -RESISTING SYSTEM	--	X	
☐	2. INSPECTION OF SCREW ATTACHMENTS, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE MAIN WIND/SEISMIC -FORCE-RESISTING SYSTEM, INCLUDING: STRUTS, BRACES AND HOLD DOWNS, SHEAR WALLS, AND DIAPHRAGMS	--	X	
	SECTION 1705.11.7 - STORAGE RACKS & ACCESS FLOORS			
☐	1. ANCHORAGE OF STORAGE RACKS AND ACCESS FLOORS 8 FEET OR GREATER IN HEIGHT	--	X	

All Connections shall conform to this table, unless noted otherwise in the structural notes, drawings, or details contained in this plan set

Refer to IBC Table 2304.10.2

No.	Description of Building Element	No. and Type of Fastener	Spacing and Location
1.	Blocking between ceiling joists, rafters or trusses to top plate or other framing below	(4) 8d box (0.113"x2 1/2")	Ea. End; Toenail
		(3) 8d common (0.131"x2 1/2")	
		(3) 10d box (0.128"x3")	
		(3) 0.131"x3" nails	
		(3) 3"x14 ga. staples 7/16" Crown	
	Blocking between rafters or truss not at the wall top plate, to rafter or truss	(2) 8d common (0.131"x2 1/2")	Ea. End; Toenail
		(2) 0.131"x3" nails	
		(2) 3"x14 ga. staples	
		(2) 16d common (0.162"x3 1/2")	End Nail
		(3) 0.131"x3" nails	
		(2) 3"x14 ga. staples	
	Flat blocking to truss and web filler	16d common (0.162"x3 1/2") @ 6" o.c.	Face Nail
		0.131"x3" nails @ 6" o.c.	
		3"x14 ga. Staples @ 6" o.c.	
2.	Ceiling Joists to Top Plate	(4) 8d box (0.113"x2 1/2")	Each Joist, Toenail
		(3) 8d common (0.131"x2 1/2")	
		(3) 10d box (0.128"x3")	
		(3) 0.131"x3" nails	
		(3) 3"x14 ga. staples 7/16" Crown	
3.	Ceiling joist not attached to parallel rafter, laps over partitions (no thrust) (see IBC Section 2308.7.3.1, IBC Table 2308.7.3.1)	(3) 16d common (0.162"x3 1/2")	Face Nail
		(4) 10d box (0.128"x3")	
		(4) 0.131"x3" nails	
		(4) 3"x14 ga. staples 7/16" Crown	
4.	Ceiling joist attached to parallel rafter (heel joint) (see Section 2308.7.3.1, Table 2308.7.3.1)	See IBC Table 2308.7.3.1	Face Nail
5.	Collar Tie to Rafter	(3) 10d common (0.148"x3")	Face Nail
		(4) 10d box (0.128"x3")	
		(4) 0.131"x3" nails	
		(4) 3"x14 ga. staples 7/16" Crown	
6.	Rafter or roof truss to top plate (See Section 2308.7.5, Table 2308.7.5)	(3) 10d common (0.148"x3")	(2) toenails on one side and (1) toenail on opposite side or rafter or truss
		(3) 16d box (0.135"x3 1/2")	
		(4) 10d box (0.128"x3")	
		(4) 0.131"x3" nails	
		(4) 3"x14 ga. staples 7/16" Crown	
7.	Roof rafters to ridge valley or hip rafters; or roof rafter to 2-inch ridge beam	(2) 16d common (0.162"x3 1/2")	End Nail
		(3) 16d box (0.135"x3 1/2")	
		(3) 10d box (0.128"x3")	
		(3) 0.131"x3" nails	
		(3) 3"x14 ga. staples 7/16" Crown	
		(3) 10d common (0.148"x3")	Toenail
		(4) 16d box (0.135"x3 1/2")	
		(4) 10d box (0.128"x3")	
		(3) 0.131"x3" nails	
		(4) 3"x14 ga. staples 7/16" Crown	
8.	Stud to stud (not at braced wall panels)	16d common (0.162"x3 1/2")	24" o.c. face nail
		10d box (0.128"x3")	16" o.c. face nail
		0.131"x3" nails	
		(3) 3"x14 ga. staples 7/16" Crown	
9.	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box (0.135"x3 1/2")	16" o.c. face nail
		0.131"x3" nails	12" o.c. face nail
		(3) 3"x14 ga. staples 7/16" Crown	
10.	Built-up header (2" to 2" header)	16d common (0.162"x3 1/2")	16" o.c. each face, face nail
		16d box (0.135"x3 1/2")	12" o.c. each face, face nail
11.	Continuous header to stud	(4) 8d common (0.131"x2 1/2")	Toenail
		(4) 10d box (0.128"x3")	
		(5) 8d box (0.113"x2 1/2")	
12.	Top plate to top plate	16d common (0.162"x3 1/2")	16" o.c. face nail
		10d box (0.128"x3")	12" o.c. face nail
		0.131"x3" nails	
		3"x14 ga. staples 7/16" Crown	
13.	Top plate to top plate, at end joints	(8) 16d common (0.162"x3 1/2")	Each side of end joint, face nail (minimum 24" lap splice length each side of end joint)
		(12) 16d box (0.135"x3 1/2")	
		(12) 10d box (0.128"x3")	
		(12) 0.131"x3" nails	
		(12) 3"x14 ga.staples 7/16" Crown	
14.	Bottom plate to joist, rim joist, band joist or block-ing (not at braced wall panels)	16d common (0.162"x3 1/2")	16" o.c. face nail
		16d box (0.135"x3 1/2")	12" o.c. face nail
		0.131"x3" nails	
		3"x14 ga. staples 7/16" Crown	
15.	Bottom plate to joist, rim joist, band joist or block-ing at braced wall panels	(2) 16d common (0.162"x3 1/2")	16" o.c. face nail
		(3) 16d box (0.135"x3 1/2")	
		(4) 0.131"x3" nails	
		(3) 3"x14 ga. staples 7/16" Crown	
16.	Stud to top or bottom plate	(3) 16d box (0.135"x3 1/2")	Toenail
		(4) 8d common (0.131"x2 1/2")	
		(4) 10d box (0.128"x3")	
		(4) 0.131"x3" nails	
		(4) 8d box (0.113"x2 1/2")	
		(4) 3"x14 ga. staples 7/16" Crown	
		(2) 16d common (0.162"x3 1/2")	End Nail
		(3) 16d box (0.135"x3 1/2")	
		(3) 10d box (0.128"x3")	
		(3) 0.131"x3" nails	
		(3) 3"x14 ga. staples 7/16" Crown	
17.	Top plates, laps at corners and intersections	(2) 16d common (0.162"x3 1/2")	Face Nail
		(3) 10d box (0.128"x3")	
		(3) 0.131"x3" nails	
		(3) 3"x14 ga. staples 7/16" Crown	
18.	1" brace to each stud and plate	(3) 8d box (0.113"x2 1/2")	Face Nail
		(2) 8d common (0.131"x2 1/2")	
		(2) 10d box (0.128"x3")	
		(2) 0.131"x3" nails	
		(2) 3"x14 ga. Staples, 7/16" crown	
19.	1" × 6" sheathing to each bearing	(3) 8d box (0.113"x2 1/2")	Face Nail
		(2) 8d common (0.131"x2 1/2")	
		(2) 10d box (0.128"x3")	
		(2) 1 3/4"x16 ga. Staples, 1" crown	

No.	Description of Building Element	No. and Type of Fastener	Spacing and Location
20.	1" × 8" and wider sheathing to each bearing	(3) 8d common (0.131"x2 1/2")	Face Nail
		(3) 8d box (0.113"x2 1/2")	
		(3) 10d box (0.128"x3")	
		(3) 1 3/4"x16 ga. Staples, 1" crown	
		Wider than 1"x8"	
		(3) 8d common (0.131"x2 1/2")	
		(4) 8d box (0.113"x2 1/2")	
		(3) 10d box (0.128"x3")	
		(4) 1 3/4"x16 ga. Staples, 1" crown	
21.	Joist to sill, top plate, or girder	(4) 8d box (0.113"x2 1/2")	Toenail
		(3) 8d common (0.131"x2 1/2")	
		(3) 10d box (0.128"x3")	
		(3) 0.131"x3" nails	
		(3) 3"x14 ga. staples 7/16" Crown	
22.	Rim joist, band joist, or blocking to top plate, sill or other framing below	8d box (0.113"x2 1/2")	4" o.c. toenail
		8d common (0.131"x2 1/2")	6" o.c. toenail
		10d box (0.128"x3")	
		0.131"x3" nails	
		3"x14 ga. Staples, 7/16" crown	
23.	1" × 6" subfloor or less to each joist	(3) 8d box (0.113"x2 1/2")	Face Nail
		(2) 8d common (0.131"x2 1/2")	
		(3) 10d box (0.128"x3")	
		(2) 1 3/4"x16 ga. Staples, 1" crown	
24.	2" subfloor to joist or girder	(3) 16d box (0.135"x3 1/2")	Blind and face nail
		(2) 16d common (0.162"x3 1/2")	
25.	2" planks (plank & beam - floor & roof)	(3) 16d box (0.135"x3 1/2")	Each bearing, face nail
		(2) 16d common (0.162"x3 1/2")	
26.	Built-up girders and beams, 2" lumber layers	20d common (0.192"x4")	32" o.c., face nail top and bot. staggered on opp sides
		10d box (0.128"x3")	24" o.c. face nail top and bot. staggered on opp. Sides
		0.131"x3" nails	
		3"x14 ga. Staples, 7/16" crown	
		AND:	Ends and at each splice, face nail
		(2) 20d common (0.192"x4")	
		(3) 10d box (0.128"x3")	
		(3) 0.131"x3" nails	
		(3) 3"x14 ga. staples 7/16" Crown	
27.	Ledger Strip Supporting Joists or Rafters	(3) 16d common (0.162"x3 1/2")	Each Joist or Rafter, Face Nail
		(4) 16d box (0.135"x3 1/2")	
		(4) 10d box (0.128"x3")	
		(4) 0.131"x3" nails	
		(4) 3"x14 ga. staples 7/16" Crown	
28.	Joist to band joist or rim joist	(3) 16d common (0.162"x3 1/2")	End Nail
		(4) 10d box (0.128"x3")	
		(3) 0.131"x3" nails	
		(4) 3"x14 ga. staples 7/16" Crown	
29.	Bridging or blocking to joist, rafter or truss	(2) 8d common (0.131"x2 1/2")	End end, toenail
		(2) 10d box (0.128"x3")	
		(2) 0.131"x3" nails	
		(2) 3"x14 ga. Staples, 7/16" crown	

THIS PLAN FOR BASIS OF IDEAS IS THE PROPERTY OF PERFORMANCE ENGINEERS. ANY FORM OF DUPLICATING OR USE OF ALL OR ANY PLANS, DRAWINGS AND DESIGNS IS PROHIBITED.
© COPYRIGHT 2024

PERFORMANCE ENGINEERS
An InteFrame Company
1102 N. FRANKLIN BLVD.
NAMPA, IDAHO 83687
PH. (208) 475-0040
FAX (208) 498-4241

REV	DATE	DESCRIPTION	BY

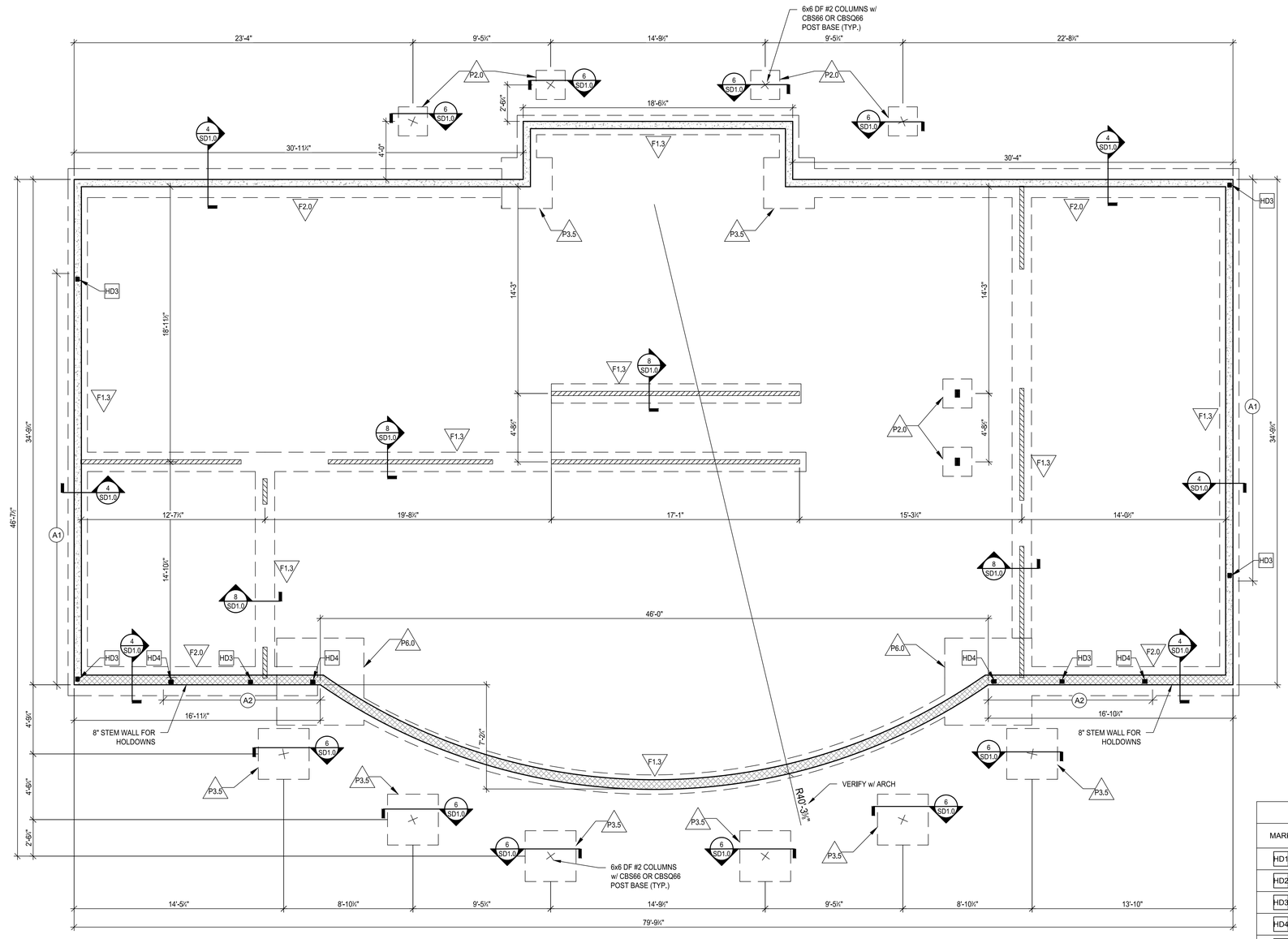
168 E 200 N
GODFREY DENTAL
IRONWOOD CONSTRUCTION
SPECIAL INSPECTIONS / CONNECTIONS
LOGAN UTAH

PROFESSIONAL ENGINEER
REGISTERED
19089
STATE OF IDAHO
VANCE LEAVITT
05/04/15/2024

DATE: 09/05/2024
SCALE: AS NOTED
DESIGN BY: OTHERS
DESIGN REVIEW: CRP
STRUCTURE BY: CRP
STRUCT. REVIEW: VAL
JOB NO.: 2024-16172

REVIEW
SHEET
S0.1

© COPYRIGHT 2024



FOUNDATION PLAN

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

LEGEND

- INDICATES 8" STEM WALL
- INDICATES FOOTING
- FLOOR FRAMING AS SPECIFIED ON PLAN
- BEAM AS SPECIFIED ON BEAM SCHEDULE
- P1 - INDICATES PAD FOOTING CALLOUTS
- F1 - INDICATES FOOTING CALLOUTS

NOTES:

1. STEM WALL TO BE FIXED TO FOOTING W/ REBAR AS SPECIFIED AS PER THE 2015 IBC IN COORDINATION W/ CITY AND/OR COUNTY SPECIFICATIONS.
2. TOP OF SURFACE OF FOOTINGS TO BE LEVEL. BOTTOM SURFACE OF FOOTING SHALL NOT HAVE A SLOPE EXCEEDING 10%.
3. PROVIDE DRAINAGE AROUND FOUNDATION TO PREVENT WATER ACCUMULATION AS REQUIRED ON SITE.
4. DIMENSIONS ARE TO CENTERLINE OF PONY WALLS & PAD FOOTINGS BUT EDGES OF STEM WALLS U.N.O.
5. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLAN PRIOR TO POURING CONCRETE.

FOOTING SCHEDULE

TYPE MARK	SIZE WxLxD	REINFORCING
F1	1'-4" x 0'-8" x CONT.	(2) #4s CONT.
F2	1'-6" x 0'-8" x CONT.	(2) #4s CONT.
F3	2'-0" x 0'-8" CONT.	(2) #4s CONT.

PAD FOOTING SCHEDULE

TYPE MARK	SIZE WxLxD	REINFORCING
P2.0	2'-0" x 2'-0" x 0'-8"	(2) #4s EA. WAY
P2.5	2'-6" x 2'-6" x 0'-8"	(2) #4s EA. WAY
P3	2'-6" x 2'-6" x 0'-8"	(3) #4s EA. WAY
P4	3'-0" x 3'-0" x 0'-10"	(3) #4s EA. WAY

ANCHOR BOLT KEY NOTES:

TAG		DESCRIPTION
A1	-	½"Ø ANCHOR BOLTS @ 12" O.C.
A2	-	½"Ø ANCHOR BOLTS @ 24" O.C.
A3	-	½"Ø ANCHOR BOLTS @ 36" O.C.
A4	-	½"Ø ANCHOR BOLTS @ 48" O.C.
A5	-	½"Ø ANCHOR BOLTS @ 60" O.C.

NOTES:

1. BOLTS SHALL NOT BE PLACED MORE THAN 12" AWAY FROM WALL CORNERS OR SILL PLATE ENDS.
2. ANCHOR BOLTS SHALL BE SPACED MAX 72" O.C. UNLESS OTHERWISE SPECIFIED.

HOLDOWN SCHEDULE

MARK	STRAP TYPE	STRAP FASTENERS	# OF STUDS		ANCHOR BOLT	# OF STUDS	FASTENERS
HD1	LSTHD8 OR LSTHD8RJ W/ RIM	(20) 16d SINKERS	2	OR	DTT2Z W/ ½Ø x10"	2	(8) ¼"x1½" SDS
HD2	STHD10 OR STHD10RJ W/ RIM	(24) 16d SINKERS	2	OR	HDU2-SDS2.5 W/ SB⅝x24 OR PAB5 @ INT. PONY WALLS	2	(6) ¼"x2½" SDS
HD3	STHD14 OR STHD14RJ W/ RIM	(30) 16d SINKERS	2	OR	HDU5-SDS2.5 W/ SB⅞x24 OR PAB5 @ INT. PONY WALLS	2	(14) ¼"x2½" SDS
HD4	-				HDU8-SDS2.5 W/ SB⅞x24 OR PAB7 @ INT. PONY WALLS	3	(20) ¼"x2½" SDS
HD5	-				HDU11-SDS2.5 W/ SB1x30 OR PAB8 @ INT. PONY WALLS	4	(30) ¼"x2½" SDS
HD6	-				HDU14-SDS2.5 W/ SB1x30 OR PAB8H @ INT. PONY WALLS	4	(36) ¼"x2½" SDS
HD7	2x2x3/16" PLATE WASHER				½Ø x10"	-	

NOTES: SEE DETAIL 7/SD1.0 FOR TYP HOLD DOWN DETAIL

THIS PLAN FOR BASIS OF IDEAS IS THE PROPERTY OF PERFORMANCE ENGINEERS. ANY FORM OF DUPLICATING OR USE OF ALL OR ANY PLANS, DRAWINGS AND DESIGNS IS PROHIBITED.
© COPYRIGHT 2024

PERFORMANCE ENGINEERS
An InteFrame Company
1102 N. FRANKLIN BLVD.
NAMPA, IDAHO 83687
PH. (208) 475-0040
FAX (208) 498-4241

REV	DATE	DESCRIPTION	BY

168 E 200 N
GODFREY DENTAL
IRONWOOD CONSTRUCTION
FOUNDATION PLAN
LOGAN UTAH

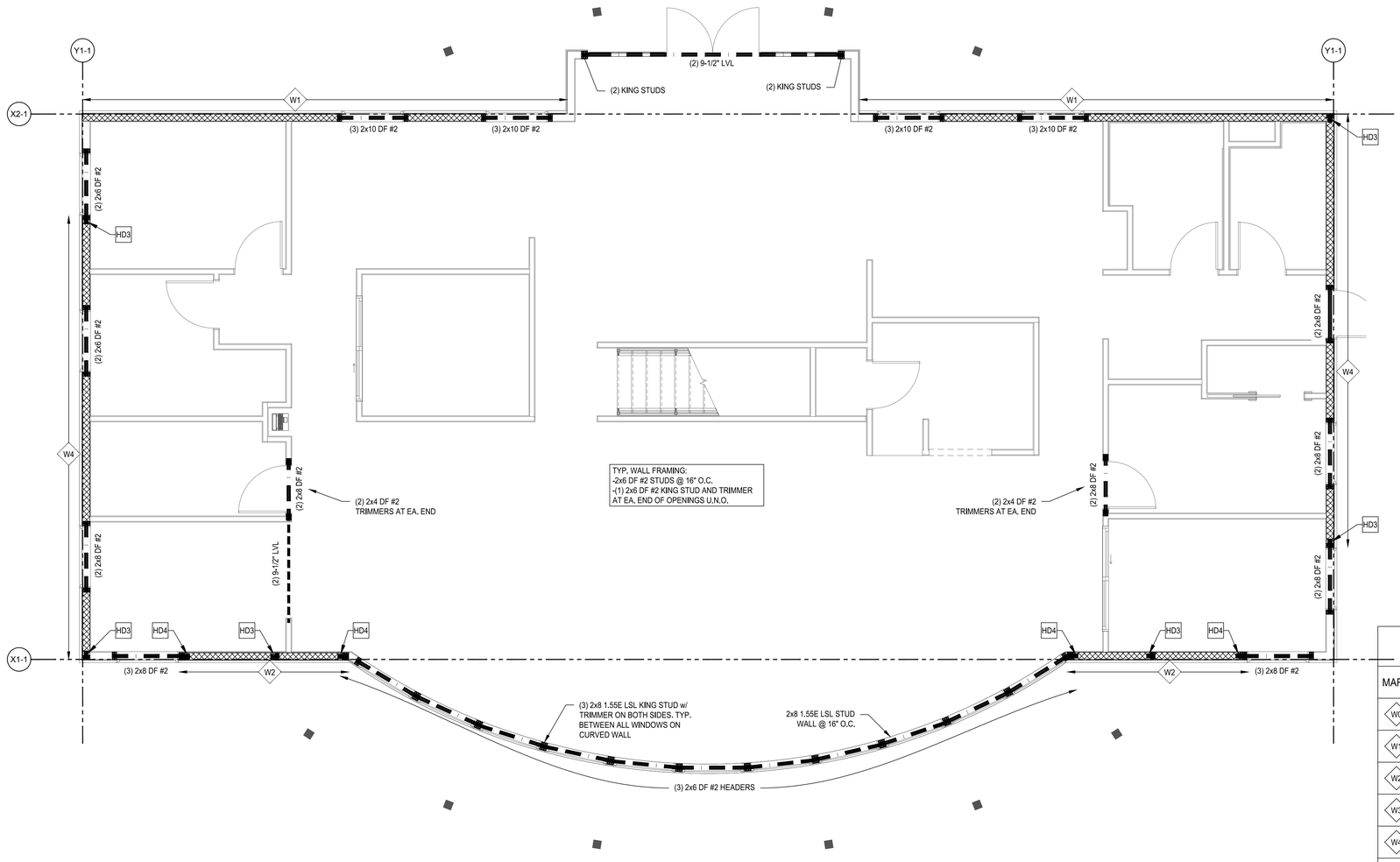
PROFESSIONAL ENGINEER
REGISTERED
19089
09/13/2024
STATE OF IDAHO
VANCE LEAVITT

DATE: 09/05/2024
SCALE: AS NOTED
DESIGN BY: OTHERS
DESIGN REVIEW: CRP
STRUCTURE BY: CRP
STRUCT. REVIEW: VAL
JOB NO.: 2024-16172

REVIEW

SHEET
S1.0

© COPYRIGHT 2024



SHEAR/HEADER PLAN

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

LEGEND

- W1 - INDICATES SHEAR WALL TYPE
- ■ - INDICATES LOCATION OF HOLD DOWN, SEE FOUNDATION PLAN
- ▨ - INDICATES EXTENT OF SHEAR WALL
- ——— - INDICATES SHEAR WALL LINE

NOTES:

1. ALL HEADERS TO BE (2) 2x6 DF #2 UNLESS NOTED OTHERWISE ON PLAN.
2. LAP TOP PLATES PER DETAIL 7/SD2.0
3. PROVIDE TWO STUDS AT ALL GIRDER / BEAM BEARING LOCATIONS UNLESS NOTED OTHERWISE.
4. FLOOR BEAMS UP IN FLR. CAVITY U.N.O. ROOF BEAMS DOWN U.N.O.
5. SEE TRUSS LAYOUT FROM TRUSS MANUFACTURER FOR ACCURATE ROOF AND FLOOR TRUSS FRAMING PLAN.
6. FLOOR BEAMS SHOWN ARE MIN. SZES. SIZES CAN BE INCREASED AT CONTRACTOR'S DISCRETION (IF USING SAME TYPE & MATERIAL FOR BEAM).
7. TALL WALLS (> 10'-0") TO BE FRAMED W/ 2x6 DF #2 @ 16" O.C. (TYP @ TALL WALLS, U.N.O.)
8. (1) 2x6 DF #2 KING STUD & (1) TRIMMER @ EA. END OF OPENINGS (TYP U.N.O.)

HOLDOWN SCHEDULE

MARK	STRAP TYPE	STRAP FASTENERS	# OF STUDS		ANCHOR BOLT	# OF STUDS	FASTENERS
HD1	LSTHD8 OR LSTHD8RJ W/ RIM	(20) 16d SINKERS	2	OR	DTT2Z W/ ½Ø x10"	2	(8) ¼"x1½" SDS
HD2	STHD10 OR STHD10RJ W/ RIM	(24) 16d SINKERS	2	OR	HDU2-SDS2.5 W/ SB⅝x24 OR PAB5 @ INT. PONY WALLS	2	(6) ¼"x2½" SDS
HD3	STHD14 OR STHD14RJ W/ RIM	(30) 16d SINKERS	2	OR	HDU5-SDS2.5 W/ SB⅝x24 OR PAB5 @ INT. PONY WALLS	2	(14) ¼"x2½" SDS
HD4	-				HDU8-SDS2.5 W/ SB⅝x24 OR PAB7 @ INT. PONY WALLS	3	(20) ¼"x2½" SDS
HD5	-				HDU11-SDS2.5 W/ SB1x30 OR PAB8 @ INT. PONY WALLS	4	(30) ¼"x2½" SDS
HD6	-				HDU14-SDS2.5 W/ SB1x30 OR PAB8H @ INT. PONY WALLS	4	(36) ¼"x2½" SDS
HD7	2x2x3/16" PLATE WASHER				½Ø x10"	-	

NOTES: SEE DETAIL 7/SD1.0 FOR TYP HOLD DOWN DETAIL

OSB SHEAR WALL SCHEDULE

MARK	SHEATHING	SIDES OF WALL	SHEET NAILING PERIMETER / FIELD		SHEET STAPLING PERIMETER / FIELD	BLOCKING	NAILING (UNO) BOTTOM PLATE INTO RIM
W0	7/16" APA RATED	1	8d @ 6 / 12	OR	16ga x 1½" @ 3 / 12	NO	(2) 16d NAILS PER 16" BAY
W1	7/16" APA RATED	1	8d @ 6 / 12	OR	16ga x 1½" @ 3 / 12	YES	(2) 16d NAILS PER 16" BAY
W2	7/16" APA RATED	1	8d @ 4 / 12	OR	16ga x 1½" @ 2 / 12	YES	(3) 16d NAILS PER 16" BAY
W3	7/16" APA RATED	1	8d @ 3 / 12			YES	(4) 16d NAILS PER 16" BAY
W4	7/16" APA RATED	1	8d @ 2 / 12		(4x STUDS @ SHEATHING PARAMETER)	YES	(4) SDS SCREWS PER 16" BAY
W5	7/16" APA RATED	2	8d @ 3 / 12			YES	(5) SDS SCREWS PER 16" BAY

GYPSUM SHEAR WALL SCHEDULE

WA	1/2" GYP. BOARD	1	5d COOLER @ 4 / 4			YES	(2) 16d NAILS PER 16" BAY
WB	1/2" GYP. BOARD	1	5d COOLER @ 4 / 4			NO	(2) 16d NAILS PER 16" BAY
OR	1/2" GYP. BOARD	2	5d COOLER @ 4 / 4			YES	(2) 16d NAILS PER 16" BAY
WC	1/2" GYP. BOARD	2	5d COOLER @ 4 / 4			NO	(2) 16d NAILS PER 16" BAY

TYP. NOTES:

1. ALL SHEATHING PANEL EDGES SHALL BE BLOCKED UNO
2. PROVIDE SAME NAILING PATTERN ABOVE AND BELOW OPENINGS AS ADJACENT SHEAR PANEL.
3. ALL EXTERIOR WALLS SHALL BE SHEARWALL "W1" WITHOUT BLKG UNO
4. FASTEN GABLE/RIM TO SHEAR WALLS BELOW W/ 10d TOENAILS @ 12" O.C. UNO
5. FASTEN TRUSS HEELS TO SHEAR WALLS W/ H2.5A AND (2) 10d TOENAILS @ EACH

THIS PLAN FOR BASIS OF IDEAS IS THE PROPERTY OF PERFORMANCE ENGINEERS. ANY FORM OF DUPLICATING OR USE OF ALL OR ANY PLANS, DRAWINGS AND DESIGNS IS PROHIBITED.
© COPYRIGHT 2024

PERFORMANCE ENGINEERS
An InteFrame Company
1102 N. FRANKLIN BLVD.
NAMPA, IDAHO 83687
PH. (208) 475-0040
FAX (208) 498-4241

REV	DATE	DESCRIPTION	BY

168 E 200 N LOGAN UTAH

GODFREY DENTAL
IRONWOOD CONSTRUCTION
SHEAR/HEADER PLAN

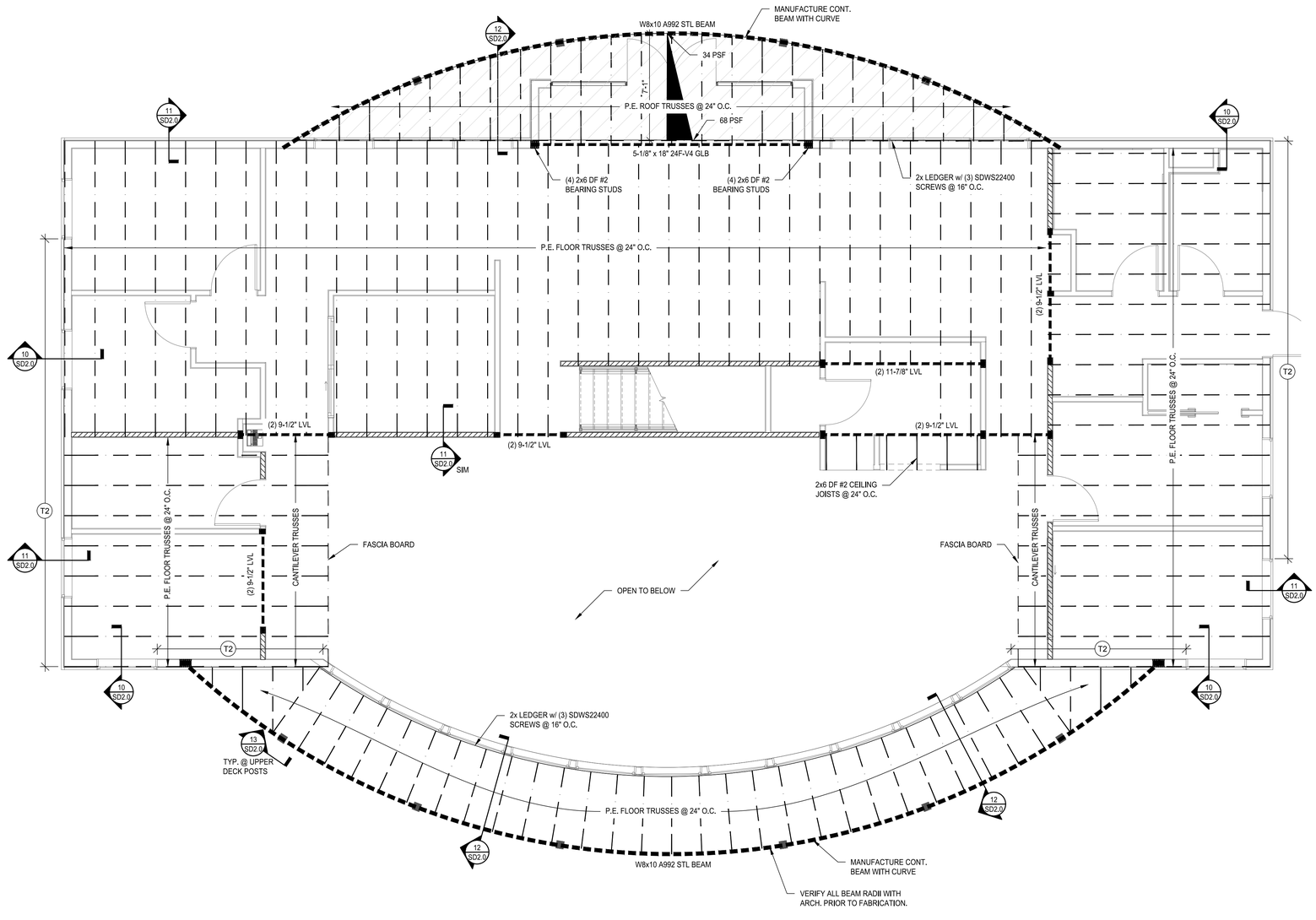
PROFESSIONAL ENGINEER REGISTERED 19089 04/13/2024 STATE OF IDAHO VANCE LEAVITT

DATE: 09/05/2024
SCALE: AS NOTED
DESIGN BY: OTHERS
DESIGN REVIEW: CRP
STRUCTURE BY: CRP
STRUCT. REVIEW: VAL
JOB NO.: 2024-16172

REVIEW

SHEET
S2.0

© COPYRIGHT 2024



UPPER LEVEL FRAMING PLAN

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

LEGEND

- INDICATES FLOOR JOISTS
- INDICATES BEAM PER BEAM SCHEDULE

NOTES:

1. LAP TOP PLATES 30" MIN. W/ (2) ROWS OF 0.131"x3" NAILS @ 3" O.C.
2. PROVIDE TWO STUDS AT ALL GIRDER / BEAM BEARING LOCATIONS UNLESS NOTED OTHERWISE.
3. FLOOR BEAMS UP IN FLR. CAVITY U.N.O. ROOF BEAMS DOWN U.N.O.
4. SEE TRUSS LAYOUT FROM TRUSS MANUFACTURER FOR ACCURATE ROOF AND FLOOR TRUSS FRAMING PLAN.
5. FLOOR BEAMS SHOWN ARE MIN. SZES. SIZES CAN BE INCREASED AT CONTRACTOR'S DISCRETION (IF USING SAME TYPE & MATERIAL FOR BEAM).

BLOCKING KEY NOTES:

TAG		DESCRIPTION
B1	-	BLOCKING BETWEEN EVERY OTHER TRUSS BAYS W/ (6)10d TOENAILS FROM BLOCKING TO TOP PLATE, NAIL ROOF SHEATHING TO BLOCKING 3" O.C.
B2	-	2-PLY OR 4x BLOCKING BETWEEN EVERY OTHER TRUSS BAYS W/ (2)A35 CLIPS FROM BLOCKING TO TOP PLATE, NAIL ROOF SHEATHING TO BLOCKING W/ 2 ROWS @ 3" O.C. (STAGGERED) -OR- BLOCKING BETWEEN EVERY TRUSS BAY W/ (6)10d TOENAILS FROM BLOCKING TO TOP PLATE, NAIL ROOF SHEATHING TO BLOCKING 3" O.C.
B3	-	2-PLY OR 4x BLOCKING BETWEEN EVERY TRUSS BAY W/ (2)A35 CLIPS FROM BLOCKING TO TOP PLATE, NAIL ROOF SHEATHING TO BLOCKING W/ 2 ROWS @ 3" O.C. (STAGGERED)
B4	-	2-PLY OR 4x BLOCKING BETWEEN EVERY TRUSS BAY W/ (3)A35 CLIPS FROM BLOCKING TO TOP PLATE, NAIL ROOF SHEATHING TO BLOCKING W/ 2 ROWS @ 3" O.C. (STAGGERED)

GABLE/DRAG TRUSS OR RIM KEY NOTES:

TAG		DESCRIPTION
T1	-	ATTACH GABLE/DRAG TRUSS OR RIM TO TOP PLATE W/ 10d TOENAILS @ 6" O.C., EDGE NAIL SHEATHING ABOVE TO TRUSS
T2	-	ATTACH GABLE/DRAG TRUSS OR RIM TO TOP PLATE W/ 10d TOENAILS @ 4" O.C., EDGE NAIL SHEATHING ABOVE TO TRUSS
T3	-	ATTACH GABLE/DRAG TRUSS OR RIM TO TOP PLATE W/ 10d TOENAILS @ 3" O.C., EDGE NAIL SHEATHING ABOVE TO TRUSS
T4	-	ATTACH GABLE/DRAG TRUSS OR RIM TO TOP PLATE W/ A35 @ 12" O.C., EDGE NAIL SHEATHING ABOVE TO TRUSS
T5	-	ATTACH GABLE/DRAG TRUSS OR RIM TO TOP PLATE W/ A35 @ 6" O.C., EDGE NAIL SHEATHING ABOVE TO TRUSS

TYP. NOTES:

1.	-	FASTEN GABLE/RIM TO SHEAR WALLS BELOW W/ 10d TOENAILS @ 12" O.C. UNO
2.	-	FASTEN TRUSS HEELS TO SHEAR WALLS W/ H2.5A AND (2) 10d TOENAILS @ EACH

THIS PLAN FOR BASIS OF IDEAS IS THE PROPERTY OF PERFORMANCE ENGINEERS. ANY FORM OF DUPLICATING OR USE OF ALL OR ANY PLANS, DRAWINGS AND DESIGNS IS PROHIBITED.
© COPYRIGHT 2024

PERFORMANCE ENGINEERS
An InteFrame Company
1102 N. FRANKLIN BLVD.
NAMPA, IDAHO 83687
PH. (208) 475-0040
FAX (208) 498-4241

REV	DATE	DESCRIPTION	BY

168 E 200 N
GODFREY DENTAL
IRONWOOD CONSTRUCTION
UPPER LEVEL FRAMING PLAN
LOGAN UTAH

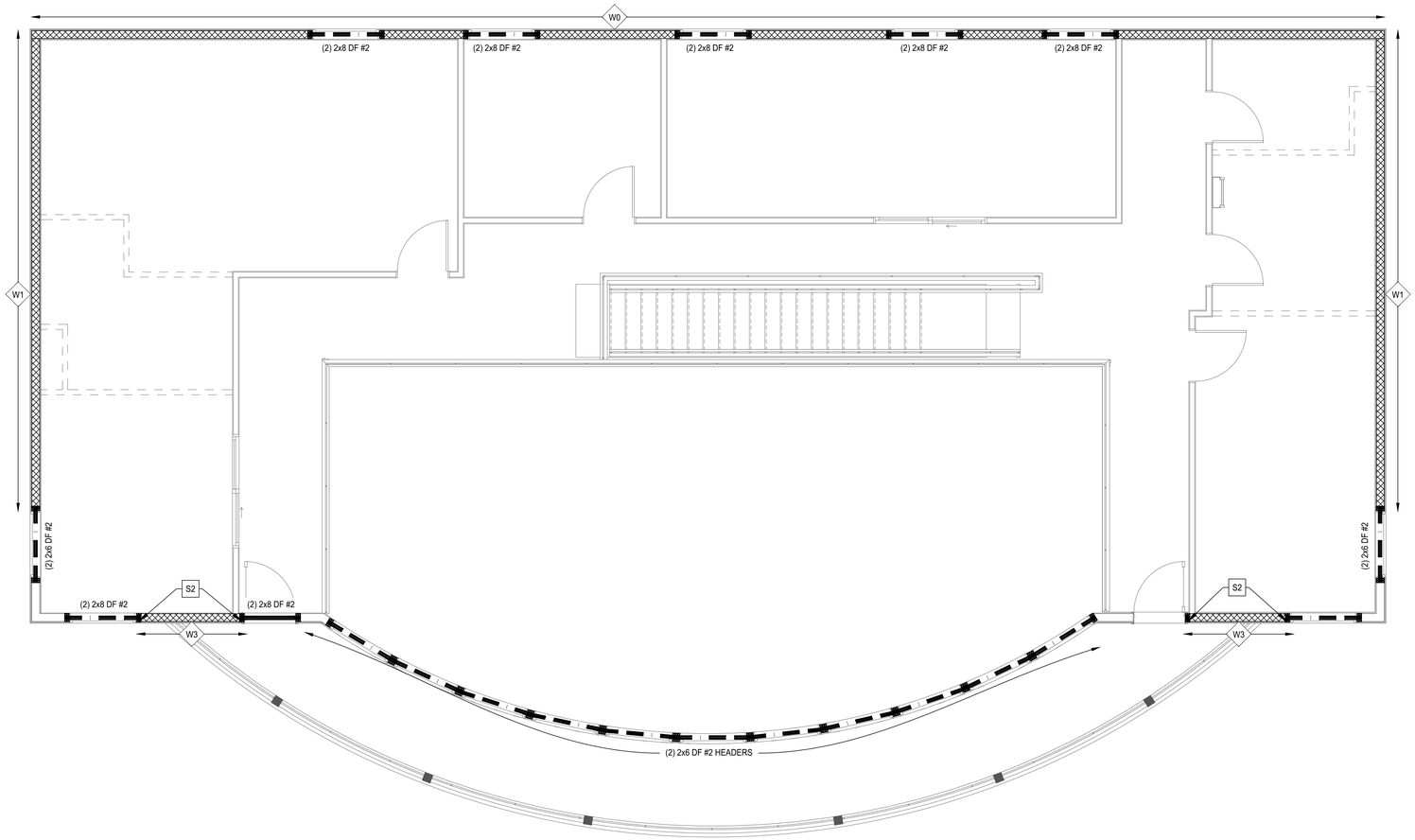
PROFESSIONAL ENGINEER REGISTERED 19089 09/13/2024 STATE OF IDAHO VANCE LEAVITT

DATE: 09/05/2024
SCALE: AS NOTED
DESIGN BY: OTHERS
DESIGN REVIEW: CRP
STRUCTURE BY: CRP
STRUCT. REVIEW: VAL
JOB NO.: 2024-16172

REVIEW

SHEET
S3.0

© COPYRIGHT 2024



UPPER SHEAR/HEADER PLAN

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

LEGEND

- W1 - INDICATES SHEAR WALL TYPE
- ■ - INDICATES LOCATION OF HOLD DOWN, SEE FOUNDATION PLAN
- ▨ - INDICATES EXTENT OF SHEAR WALL
- ——— - INDICATES SHEAR WALL LINE

NOTES:

1. ALL HEADERS TO BE (2) 2x6 DF #2 UNLESS NOTED OTHERWISE ON PLAN.
2. LAP TOP PLATES 30" MIN. W/ (2) ROWS OF 0.131"x3" NAILS @ 3" O.C.
3. PROVIDE TWO STUDS AT ALL GIRDER / BEAM BEARING LOCATIONS UNLESS NOTED OTHERWISE.
4. FLOOR BEAMS UP IN FLR. CAVITY U.N.O. ROOF BEAMS DOWN U.N.O.
5. SEE TRUSS LAYOUT FROM TRUSS MANUFACTURER FOR ACCURATE ROOF AND FLOOR TRUSS FRAMING PLAN.
6. FLOOR BEAMS SHOWN ARE MIN. SZES. SIZES CAN BE INCREASED AT CONTRACTOR'S DISCRETION (IF USING SAME TYPE & MATERIAL FOR BEAM).
7. TALL WALLS (> 10'-0") TO BE FRAMED W/ 2x6 DF #2 @ 16" O.C. (TYP @ TALL WALLS, U.N.O.)
8. (1) 2x6 DF #2 KING STUD & (1) TRIMMER @ EA. END OF OPENINGS (TYP U.N.O.)

OSB SHEAR WALL SCHEDULE

MARK	SHEATHING	SIDES OF WALL	SHEET NAILING PERIMETER / FIELD		SHEET STAPLING PERIMETER / FIELD	BLOCKING	NAILING (UNO) BOTTOM PLATE INTO RIM
W0	7/16" APA RATED	1	8d @ 6 / 12	OR	16ga x 1½" @ 3 / 12	NO	(2) 16d NAILS PER 16" BAY
W1	7/16" APA RATED	1	8d @ 6 / 12	OR	16ga x 1½" @ 3 / 12	YES	(2) 16d NAILS PER 16" BAY
W2	7/16" APA RATED	1	8d @ 4 / 12	OR	16ga x 1½" @ 2 / 12	YES	(3) 16d NAILS PER 16" BAY
W3	7/16" APA RATED	1	8d @ 3 / 12			YES	(4) 16d NAILS PER 16" BAY
W4	7/16" APA RATED	1	8d @ 2 / 12		(4x STUDS @ SHEATHING PARAMETER)	YES	(4) SDS SCREWS PER 16" BAY
W5	7/16" APA RATED	2	8d @ 3 / 12			YES	(5) SDS SCREWS PER 16" BAY

GYPSUM SHEAR WALL SCHEDULE

WA	1/2" GYP. BOARD	1	5d COOLER @ 4 / 4		YES	(2) 16d NAILS PER 16" BAY
WB	1/2" GYP. BOARD	1	5d COOLER @ 4 / 4		NO	(2) 16d NAILS PER 16" BAY
OR	1/2" GYP. BOARD	2	5d COOLER @ 4 / 4		YES	(2) 16d NAILS PER 16" BAY
WC	1/2" GYP. BOARD	2	5d COOLER @ 4 / 4		NO	(2) 16d NAILS PER 16" BAY

TYP. NOTES:

1. ALL SHEATHING PANEL EDGES SHALL BE BLOCKED UNO
2. PROVIDE SAME NAILING PATTERN ABOVE AND BELOW OPENINGS AS ADJACENT SHEAR PANEL.
3. ALL EXTERIOR WALLS SHALL BE SHEARWALL "W1" WITHOUT BLKG UNO
4. FASTEN GABLE/RIM TO SHEAR WALLS BELOW W/ 10d TOENAILS @ 12" O.C. UNO
5. FASTEN TRUSS HEELS TO SHEAR WALLS W/ H2.5A AND (2) 10d TOENAILS @ EACH

STRAP SCHEDULE

S1	MSTC28	2	STRAP TO CLEAR SPAN ACROSS RIM TO WALL BELOW	(16) 16d SINKERS
S2	MSTC40	2	STRAP TO CLEAR SPAN ACROSS RIM TO WALL BELOW	(32) 16d SINKERS
S3	MSTC52	2	STRAP TO CLEAR SPAN ACROSS RIM TO WALL BELOW	(48) 16d SINKERS
S4	MSTC66	2	STRAP TO CLEAR SPAN ACROSS RIM TO WALL BELOW	(68) 16d SINKERS
S5	CMSTC16	2	STRAP TO CLEAR SPAN ACROSS RIM TO WALL BELOW	(50) 16d SINKERS
S6	CMST14	2	STRAP TO CLEAR SPAN ACROSS RIM TO WALL BELOW	(56) 16d SINKERS
S7	CMST12	2	STRAP TO CLEAR SPAN ACROSS RIM TO WALL BELOW	(74) 16d SINKERS

NOTES: SEE DETAIL 7/SD1.0 FOR TYP HOLD DOWN DETAIL

THIS PLAN FOR BASIS OF IDEAS IS THE PROPERTY OF PERFORMANCE ENGINEERS. ANY FORM OF DUPLICATING OR USE OF ALL OR ANY PLANS, DRAWINGS AND DESIGNS IS PROHIBITED.
© COPYRIGHT 2024

PERFORMANCE ENGINEERS
An InteFrame Company
1102 N. FRANKLIN BLVD.
NAMPA, IDAHO 83687
PH. (208) 475-0040
FAX (208) 498-4241

REV	DATE	DESCRIPTION	BY

168 E 200 N
GODFREY DENTAL
IRONWOOD CONSTRUCTION
UPPER LEVEL SHEAR/HEADER PLAN
LOGAN UTAH

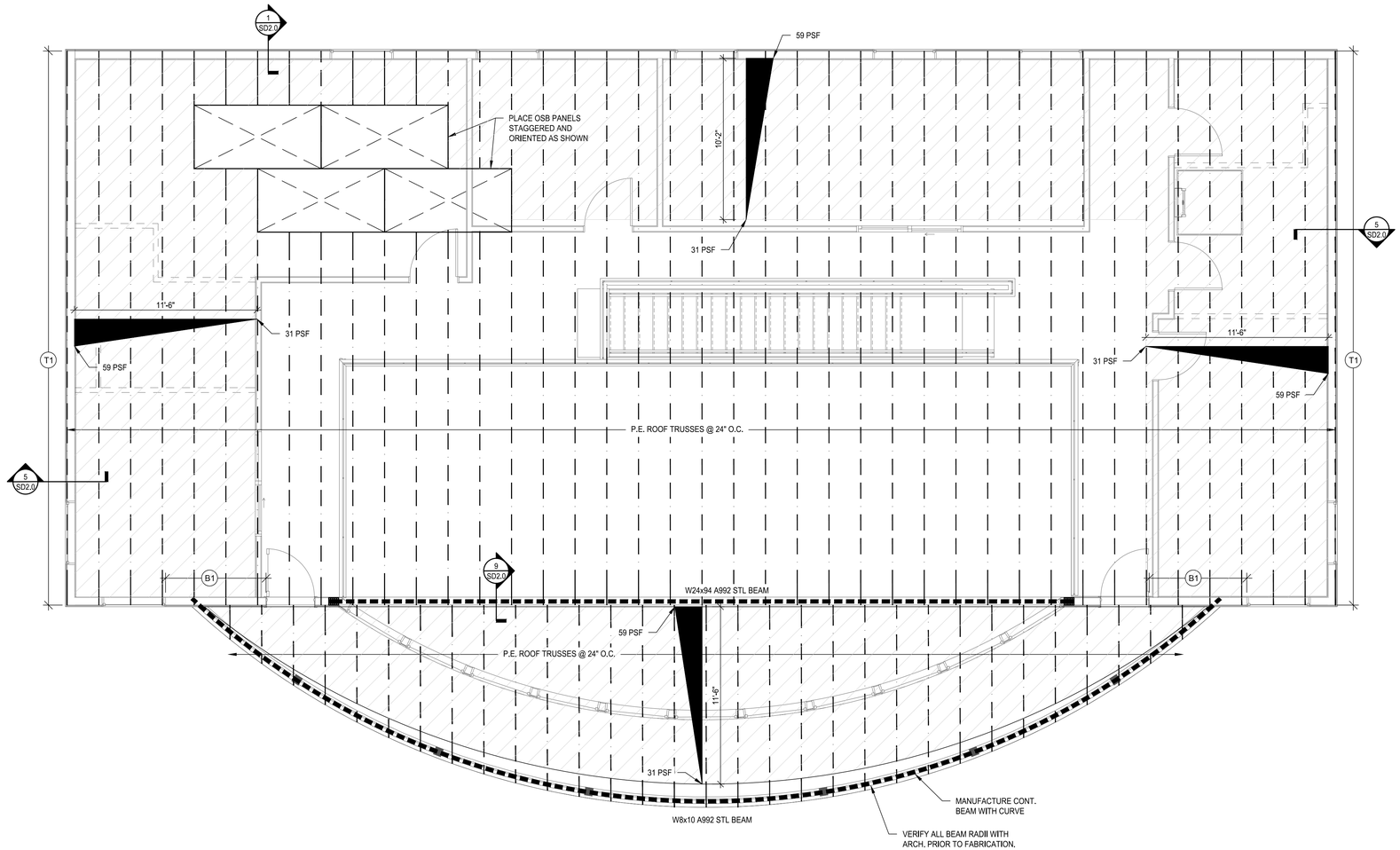
PROFESSIONAL ENGINEER
REGISTERED
19089
07/09/13/2024
STATE OF IDAHO
VANCE LEAVITT

DATE: 09/05/2024
SCALE: AS NOTED
DESIGN BY: OTHERS
DESIGN REVIEW: CRP
STRUCTURE BY: CRP
STRUCT. REVIEW: VAL
JOB NO.: 2024-16172

REVIEW

SHEET
S3.1

© COPYRIGHT 2024



ROOF FRAMING PLAN

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

LEGEND

- INDICATES BEARING WALL
- BEAM AS SPECIFIED ON BEAM SCHEDULE
- INDICATES OVERFRAMING SEE FRAMING DETAILS SHEET(S)

NOTES:

1. PROVIDE TWO STUDS AT ALL GIRDER / BEAM BEARING LOCATIONS UNLESS NOTED OTHERWISE.
2. SEE ROOF TRUSS LAYOUT FROM TRUSS MANUFACTURER FOR ACCURATE ROOF FRAMING PLAN

BLOCKING KEY NOTES:

TAG		DESCRIPTION
B1	-	BLOCKING BETWEEN EVERY OTHER TRUSS BAYS W/ (6)10d TOENAILS FROM BLOCKING TO TOP PLATE, NAIL ROOF SHEATHING TO BLOCKING 3" O.C.
B2	-	2-PLY OR 4x BLOCKING BETWEEN EVERY OTHER TRUSS BAYS W/ (2)A35 CLIPS FROM BLOCKING TO TOP PLATE, NAIL ROOF SHEATHING TO BLOCKING W/ 2 ROWS @ 3" O.C. (STAGGERED) -OR- BLOCKING BETWEEN EVERY TRUSS BAY W/ (6)10d TOENAILS FROM BLOCKING TO TOP PLATE, NAIL ROOF SHEATHING TO BLOCKING 3" O.C.
B3	-	2-PLY OR 4x BLOCKING BETWEEN EVERY TRUSS BAY W/ (2)A35 CLIPS FROM BLOCKING TO TOP PLATE, NAIL ROOF SHEATHING TO BLOCKING W/ 2 ROWS @ 3" O.C. (STAGGERED)
B4	-	2-PLY OR 4x BLOCKING BETWEEN EVERY TRUSS BAY W/ (3)A35 CLIPS FROM BLOCKING TO TOP PLATE, NAIL ROOF SHEATHING TO BLOCKING W/ 2 ROWS @ 3" O.C. (STAGGERED)

GABLE/DRAG TRUSS OR RIM KEY NOTES:

TAG		DESCRIPTION
T1	-	ATTACH GABLE/DRAG TRUSS OR RIM TO TOP PLATE W/ 10d TOENAILS @ 6" O.C., EDGE NAIL SHEATHING ABOVE TO TRUSS
T2	-	ATTACH GABLE/DRAG TRUSS OR RIM TO TOP PLATE W/ 10d TOENAILS @ 4" O.C., EDGE NAIL SHEATHING ABOVE TO TRUSS
T3	-	ATTACH GABLE/DRAG TRUSS OR RIM TO TOP PLATE W/ 10d TOENAILS @ 3" O.C., EDGE NAIL SHEATHING ABOVE TO TRUSS
T4	-	ATTACH GABLE/DRAG TRUSS OR RIM TO TOP PLATE W/ A35 @ 12" O.C., EDGE NAIL SHEATHING ABOVE TO TRUSS
T5	-	ATTACH GABLE/DRAG TRUSS OR RIM TO TOP PLATE W/ A35 @ 6" O.C., EDGE NAIL SHEATHING ABOVE TO TRUSS

TYP. NOTES:

1.	-	FASTEN GABLE/RIM TO SHEAR WALLS BELOW W/ 10d TOENAILS @ 12" O.C. UNO
2.	-	FASTEN TRUSS HEELS TO SHEAR WALLS W/ H2.5A AND (2) 10d TOENAILS @ EACH

THIS PLAN FOR BASIS OF IDEAS IS THE PROPERTY OF PERFORMANCE ENGINEERS. ANY FORM OF DUPLICATING OR USE OF ALL OR ANY PLANS, DRAWINGS AND DESIGNS IS PROHIBITED.
© COPYRIGHT 2024

PERFORMANCE ENGINEERS
An InteFrame Company
1102 N. FRANKLIN BLVD.
NAMPA, IDAHO 83687
PH. (208) 475-0040
FAX (208) 498-4241

REV	DATE	DESCRIPTION	BY

168 E 200 N
GODFREY DENTAL
IRONWOOD CONSTRUCTION
ROOF FRAMING PLAN
LOGAN UTAH

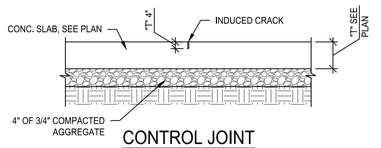
PROFESSIONAL ENGINEER
REGISTERED
19891
09/13/2024
STATE OF IDAHO
VANCE LEAVITT

DATE: 09/05/2024
SCALE: AS NOTED
DESIGN BY: OTHERS
DESIGN REVIEW: CRP
STRUCTURE BY: CRP
STRUCT. REVIEW: VAL
JOB NO.: 2024-16172

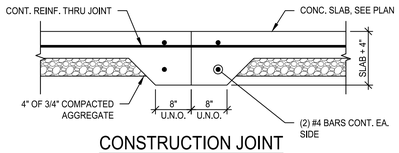
REVIEW

SHEET
S4.0

© COPYRIGHT 2024



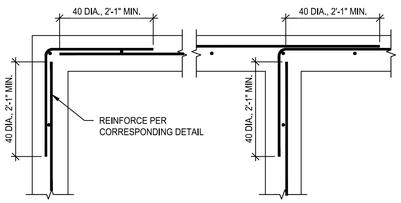
CONTROL JOINT



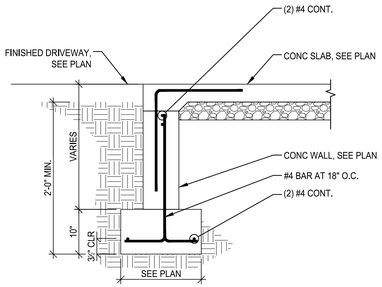
CONSTRUCTION JOINT

1) SAWED OR FORMED JOINT @ CONTRACTORS OPTION.
2) SAW CUT TO BE MADE AS SOON AS POSSIBLE WITHOUT DAMAGING SURFACE.
3) RECOMMEND JOINT BE PLACED 10'-0" O.C. MAX. EA. WAY & RATIO 2:1 NOT EXCEEDED

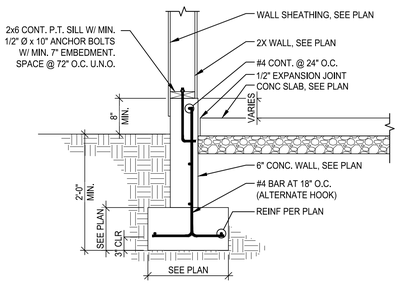
1 SD1.0 TYP. SLAB JOINT DETAIL
SCALE: 3/4" = 1'-0"



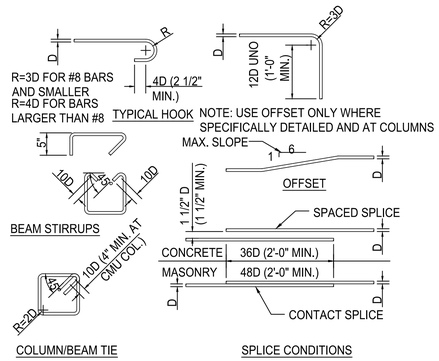
2 SD1.0 TYP. CORNER REINFORCEMENT
SCALE: 3/4" = 1'-0"



3 SD1.0 FOUNDATION AT OPENING
SCALE: 3/4" = 1'-0"



4 SD1.0 TYPICAL FOUNDATION DETAIL
SCALE: 3/4" = 1'-0"



5 SD1.0 REINFORCING BAR BENDS
SCALE: N.T.S.

6 SD1.0 POST FOUNDATION DETAIL
SCALE: 3/4" = 1'-0"

7 SD1.0 HOLDOWN DETAIL
SCALE: N.T.S.

8 SD1.0 THICKENED SLAB DETAIL
SCALE: 3/4" = 1'-0"

9 SD1.0 SILL PLATE ANCHORAGE
SCALE: 3/4" = 1'-0"

THIS PLAN FOR BASIS OF IDEAS IS THE PROPERTY OF PERFORMANCE ENGINEERS. ANY FORM OF DUPLICATING OR USE OF ALL OR ANY PLANS, DRAWINGS AND DESIGNS IS PROHIBITED.
© COPYRIGHT 2024

PERFORMANCE ENGINEERS
An InteFrame Company
1102 N. FRANKLIN BLVD.
NAMPA, IDAHO 83687
PH. (208) 475-0040
FAX (208) 498-4241

REV	DATE	DESCRIPTION	BY

168 E 200 N
GODFREY DENTAL
IRONWOOD CONSTRUCTION
FOUNDATION PLANS
LOGAN UTAH

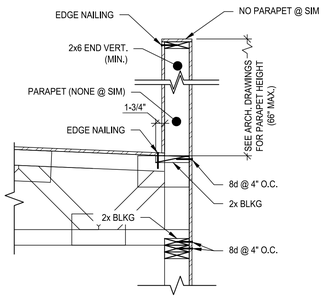
PROFESSIONAL ENGINEER
REGISTERED
19891
09/13/2024
STATE OF IDAHO
VANCE LEAVITT

DATE: 09/05/2024
SCALE: AS NOTED
DESIGN BY: OTHERS
DESIGN REVIEW: CRP
STRUCTURE BY: CRP
STRUCT. REVIEW: VAL
JOB NO.: 2024-16172

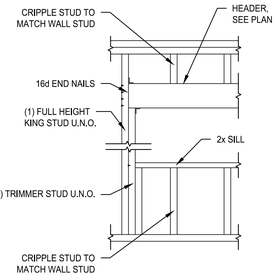
REVIEW

SHEET
SD1.0

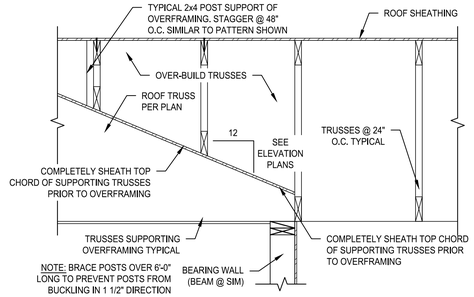
© COPYRIGHT 2024



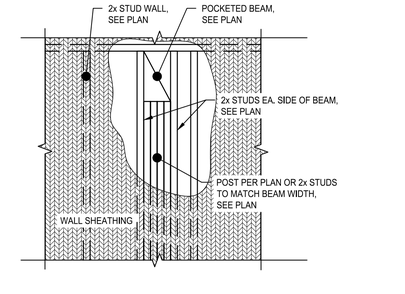
1 SD2.0 TRUSS BEARING DETAIL
SCALE: 3/4" = 1'-0"



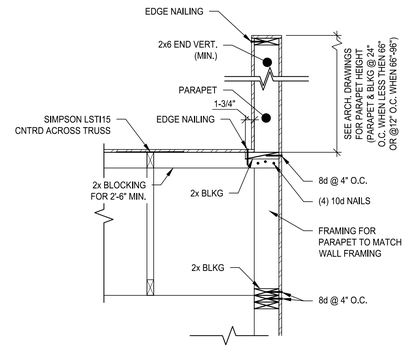
2 SD2.0 HEADER DETAIL
SCALE: 3/4" = 1'-0"



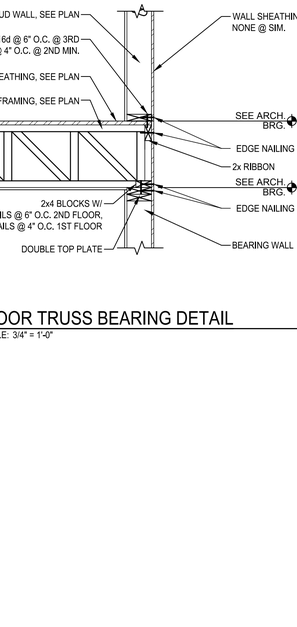
3 SD2.0 TYPICAL OVERBUILD DETAIL
SCALE: 3/4" = 1'-0"



4 SD2.0 BEAM POCKET IN WALL
SCALE: 3/4" = 1'-0"

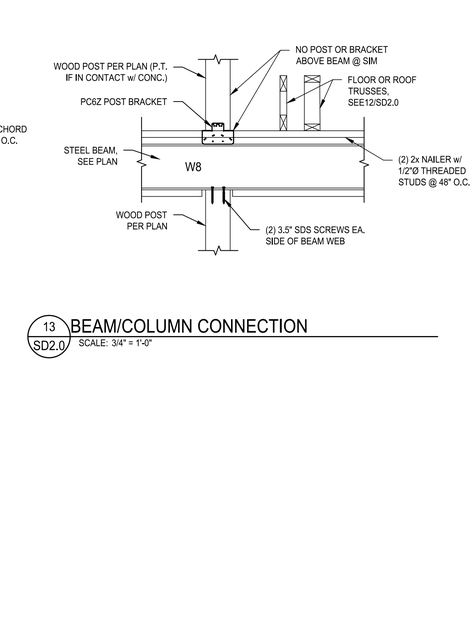


5 SD2.0 GABLE DETAIL
SCALE: 3/4"=1'-0"



6 SD2.0 STUD WALL INTERSECTIONS
SCALE: 3/4" = 1'-0"

7 SD2.0 TYP. DOUBLE TOP PLATE SPLICE
SCALE: 3/4" = 1'-0"

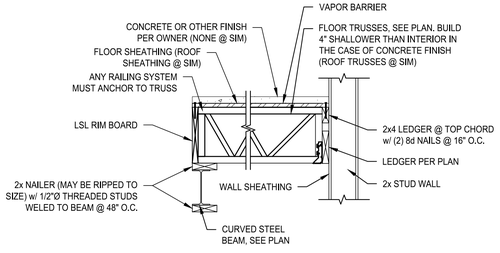


8 SD2.0 UPPER FLOOR HOLDOWN DETAIL
SCALE: 3/4" = 1'-0"

9 SD2.0 ROOF FRAMING SECTION
SCALE: 3/4" = 1'-0"

10 SD2.0 FLOOR TRUSS BEARING (GABLE END)
SCALE: 3/4" = 1'-0"

11 SD2.0 FLOOR TRUSS BEARING DETAIL
SCALE: 3/4" = 1'-0"



12 SD2.0 UPPER FLOOR/ROOF SECTION
SCALE: 3/4" = 1'-0"

13 SD2.0 BEAM/COLUMN CONNECTION
SCALE: 3/4" = 1'-0"

THIS PLAN FOR BASIS OF IDEAS IS THE PROPERTY OF PERFORMANCE ENGINEERS. ANY FORM OF DUPLICATING OR USE OF ALL OR ANY PLANS, DRAWINGS AND DESIGNS IS PROHIBITED.
© COPYRIGHT 2024

PERFORMANCE ENGINEERS
An InteFrame Company
1102 N. FRANKLIN BLVD.
NAMPA, IDAHO 83687
PH. (208) 475-0040
FAX (208) 498-4241

REV	DATE	DESCRIPTION	BY

168 E 200 N
GODFREY DENTAL
IRONWOOD CONSTRUCTION
FRAMING DETAILS
LOGAN UTAH

PROFESSIONAL ENGINEER
REGISTERED
19089
09/13/2024
STATE OF IDAHO
VANCE LEAVITT

DATE: 09/05/2024
SCALE: AS NOTED
DESIGN BY: OTHERS
DESIGN REVIEW: CRP
STRUCTURE BY: CRP
STRUCT. REVIEW: VAL
JOB NO.: 2024-16172

REVIEW

SHEET
SD2.0

© COPYRIGHT 2024

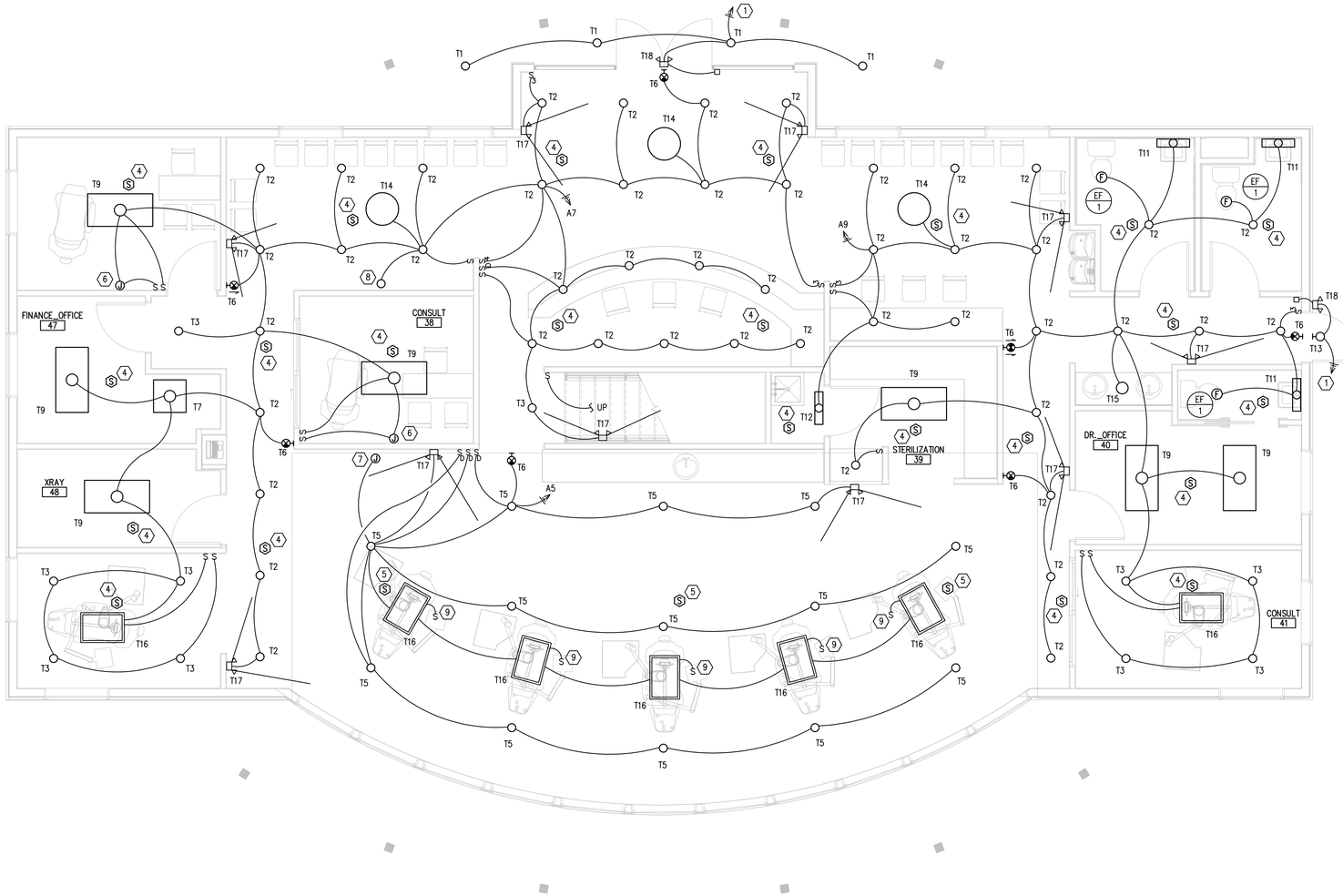
LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER/CATALOG NO.	MOUNTING	LAMPS
T1	GOTHAM EVO6 35/05 AR LSS WD MVOLT GZ1	RECESS	LED (6W)
T2	GOTHAM EVO6 35/10 AR LSS WD MVOLT GZ1	RECESS	LED (10W)
T3	GOTHAM EVO6 35/20 AR LSS WD MVOLT GZ1	RECESS	LED (20W)
T4	GOTHAM EVO6 35/25 AR LSS WD MVOLT GZ1	RECESS	LED (25W)
T5	GOTHAM EVO6 35/50 AR LSS WD MVOLT GZ1	RECESS	LED (49W)
T6	LITHONIA LQM S W 3 G 120/277 ELN SD FACES AS REQUIRED	AS SHOWN	LED (1W)
T7	LITHONIA EPANL 2X2 3300LM 80CRI 35K MIN1 ZT MVOLT	T-BAR	LED (30W)
T8	LITHONIA EPANL 2X4 5400LM 80CRI 35K MIN1 ZT MVOLT	T-BAR	LED (51W)
T9	LITHONIA EPANL 2X4 6000LM 80CRI 35K MIN1 ZT MVOLT	T-BAR	LED (53W)
T10	48" STRIP LIGHT, 2000 LUMEN, 3500K	SURFACE	LED (15W)
T11	24" BATHROOM LIGHT, $500 ALLOWANCE	WALL ABOVE MIRROR	LED (15W)
T12	24" STRIP LIGHT, 2000 LUMEN, 3500K	SURFACE	LED (15W)
T13	15W OUTSIDE WALL LIGHT	WALL, HEIGHT PER ARCHITECT	LED (15W)
T14	LOBBY FIXTURE PER OWNER, $500 ALLOWANCE	–	LED (25W)
T15	HALL PENDANT PER OWNER, $400 ALLOWANCE	PENDANT	LED (10W)
T16	CHAIR SUSPENDED LIGHT PER OWNER, $400 ALLOWANCE	PENDANT	LED (50W)
T17	LITHONIA ELM6L SP 1100L WHITE UVOLT LTP SDRT AIM LAMPS AS SHOWN ON DRAWINGS	WALL, +8.5FT.	LED (10W)
T18	2W OUTSIDE REMOTE EM LAMP WITH INTERIOR BATTERY	WALL ABOVE DOOR	LED (2W)

NOTE: ALL BUGEYE EMERGENCY FIXTURES MUST BE CONNECTED TO THE SAME CIRCUIT AS THE NORMAL LIGHTS SERVING THE SAME AREA

KEYED NOTES (#)

1. RUN OUTDOOR LIGHT CIRCUIT THROUGH SQUARE D CLASS 8903 TYPE LG40 NEMA 1 CONTACTOR ADJACENT TO PANEL. CONTROL THE CONTACTOR BY PHOTOCELL "ON" AND TIME CLOCK "OFF". USE TORK DGLC100A-NC TIME CLOCK ADJACENT TO CONTACTOR. LOCATE TORK EPC-A PHOTOCELL OUTSIDE OF BUILDING AWAY FROM ANY LIGHT SOURCE OR DIRECT SUNLIGHT. INSTALL MANUAL OVERRIDE TOGGLE 6HR TIME SWITCH ADJACENT TO CONTACTOR. TIME CLOCK MUST RETAIN TIME AND PROGRAM SETTINGS ON LOSS OF POWER FOR AT LEAST 10 HOURS.
2. NOT USED.
3. NOT USED.
4. CEILING MOUNT OCCUPANCY SENSOR. AUTO ON, AUTO OFF. WATTSTOPPER DT300 SENSOR(S) WITH BZ-150 POWER PACK(S) SET TO OCCUPANCY SETTING. SENSOR(S) TO CONTROL ALL LIGHTS IN ROOM UNLESS SHOWN OTHERWISE. INSTALL PER MANUFACTURER WIRING DIAGRAMS. PROVIDE BZ-150 POWER PACK AT EACH SEPARATELY SWITCHED LOCATION.
5. WATT STOPPER HB300 SERIES HIGHBAY SENSORS AND POWER PACKS AS REQUIRED TO OPERATE ALL LIGHTS IN ROOM UNLESS SHOWN OTHERWISE. SENSOR(S) TO HAVE 20FT. BY 40FT. COVERAGE PATTERN AT 30FT. MOUNTING HEIGHT. SET SENSITIVITY AND TIME DELAY AT MAXIMUMS.
6. LOCATE J-BOX FOR BACK LIGHT BOX AS REQUIRED.
7. LOCATE J-BOX FOR WALL ACCENT LIGHT.
8. LOCATE J-BOX FOR CEILING ACCENT LIGHT.
9. MANUAL SWITCH AT CHAIR LOCATION PER OWNER.



LICENSED PROFESSIONAL ENGINEER
No. 178785
DAVID M. BEAZER
11.11.2024
STATE OF UTAH

BEAZER ENGINEERING INC.
P.O. BOX 652
MILLVILLE, UTAH 84326
C 435.770.8999
david@beazer-engineering.com

OWNERSHIP OF DOCUMENTS
These documents, including the designs and ideas incorporated herein, are the property of BEAZER ENGINEERING, INC. and shall not be used, in whole or in part, for any other project without written permission.

DATE
Nov. 11, 2024

PROJECT TITLE
Godfrey Orthodontics
340 W 3200 S
Nibley, UT 84321

SHEET TITLE
1ST FLOOR LIGHTING PLAN
SCALE: 1/4"=1'-0"

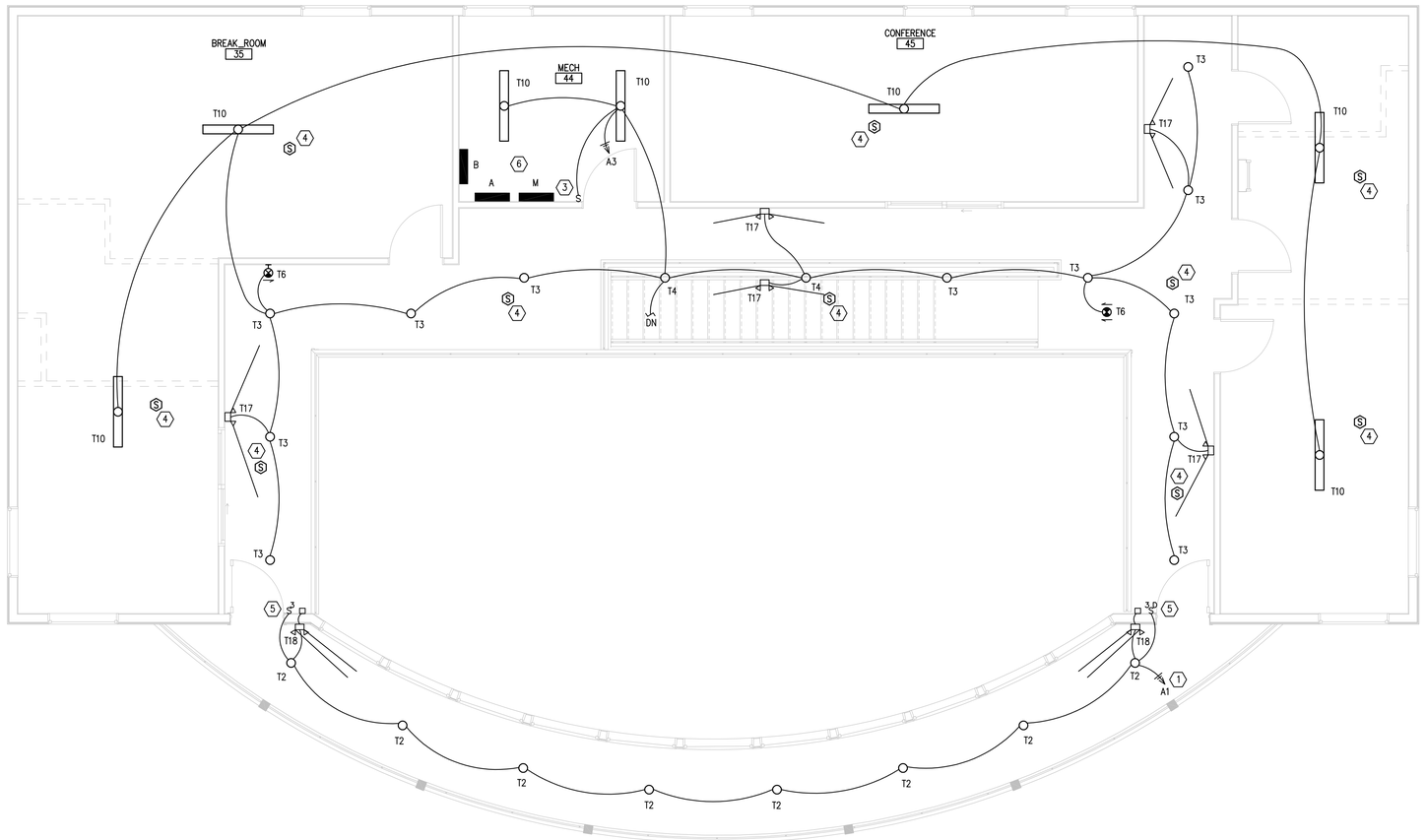
PROJECT NUMBER

REVISIONS

SHEET NUMBER
E1.1

KEYED NOTES

1. RUN OUTDOOR LIGHT CIRCUIT THROUGH SQUARE D CLASS 8903 TYPE LG40 NEMA 1 CONTACTOR ADJACENT TO PANEL. CONTROL THE CONTACTOR BY PHOTOCELL "ON" AND TIME CLOCK "OFF". USE TORK DGLC100A-NC TIME CLOCK ADJACENT TO CONTACTOR. LOCATE TORK EPC-A PHOTOCELL OUTSIDE OF BUILDING AWAY FROM ANY LIGHT SOURCE OR DIRECT SUNLIGHT. INSTALL MANUAL OVERRIDE TOGGLE 6HR TIME SWITCH ADJACENT TO CONTACTOR. TIME CLOCK MUST RETAIN TIME AND PROGRAM SETTINGS ON LOSS OF POWER FOR AT LEAST 10 HOURS.
2. NOT USED.
3. VACANCY SENSOR SWITCH, MANUAL ON, AUTO OFF, PER 2015 IECC C405.2.1.1. WATTSTOPPER DSW-301 OR EQUAL.
4. CEILING MOUNT OCCUPANCY SENSOR. AUTO ON, AUTO OFF. WATTSTOPPER DT300 SENSOR(S) WITH BZ-150 POWER PACK(S) SET TO OCCUPANCY SETTING. SENSOR(S) TO CONTROL ALL LIGHTS IN ROOM UNLESS SHOWN OTHERWISE. INSTALL PER MANUFACTURER WIRING DIAGRAMS. PROVIDE BZ-150 POWER PACK AT EACH SEPARATELY SWITCHED LOCATION.
5. SWITCHES TO OVERRIDE TO DIM OR OFF WHEN DESIRED.
6. VERIFY PANEL CLEARANCES NEEDED FOR PANEL FRONT AND ABOVE PANEL FOOTPRINT AND LOCATE PANELS ACCORDINGLY.



LICENSED PROFESSIONAL ENGINEER
No. 178785
DAVID W. BEAZER
11.11.2024
STATE OF UTAH

BEAZER ENGINEERING INC.
P.O. BOX 652
MILLVILLE, UTAH 84326
C 435.770.8999
david@beazer-engineering.com

OWNERSHIP OF DOCUMENTS
These documents, including the designs and ideas incorporated herein, are the property of BEAZER ENGINEERING, INC. and shall not be used, in whole or in part, for any other project without written permission.

DATE
Nov. 11, 2024

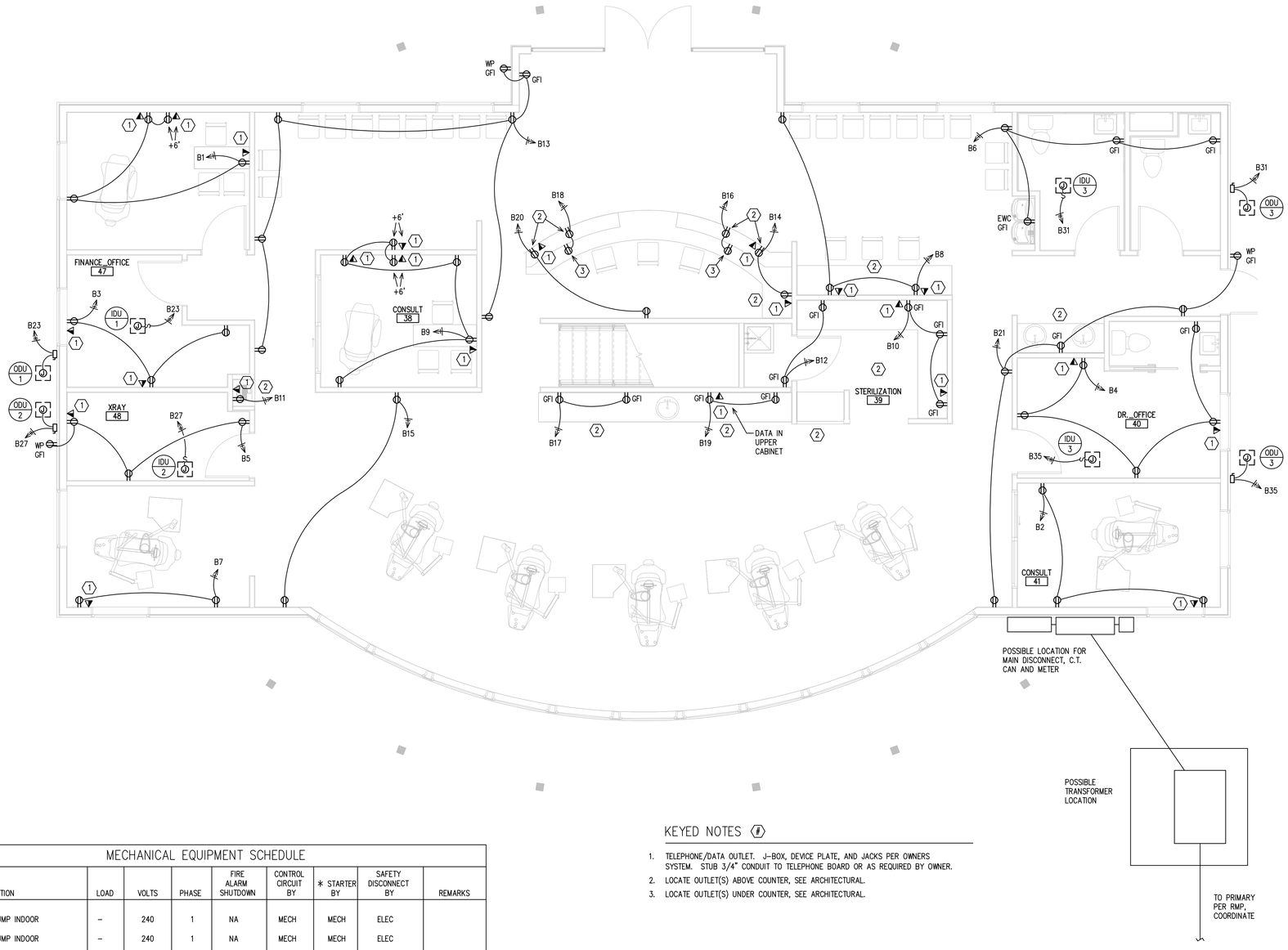
PROJECT TITLE
Godfrey Orthodontics
340 W 3200 S
Nibley, UT 84321

SHEET TITLE
2ND FLOOR LIGHTING PLAN
SCALE: 1/4"=1'-0"

PROJECT NUMBER

REVISIONS

SHEET NUMBER
E1.2



MECHANICAL EQUIPMENT SCHEDULE

SYM	DESCRIPTION	LOAD	VOLTS	PHASE	FIRE ALARM SHUTDOWN	CONTROL CIRCUIT BY	* STARTER BY	SAFETY DISCONNECT BY	REMARKS
IDU/1	HEAT PUMP INDOOR	–	240	1	NA	MECH	MECH	ELEC	
IDU/2	HEAT PUMP INDOOR	–	240	1	NA	MECH	MECH	ELEC	
IDU/3	HEAT PUMP INDOOR	–	240	1	NA	MECH	MECH	ELEC	
ODU/1	HEAT PUMP OUTDOOR	12.2A	240	1	NA	MECH	MECH	ELEC	15A MOCP
ODU/2	HEAT PUMP OUTDOOR	18.6A	240	1	NA	MECH	MECH	ELEC	25A MOCP
ODU/3	HEAT PUMP OUTDOOR	18.8A	240	1	NA	MECH	MECH	ELEC	25A MOCP
ERV/1	ENERGY RECOVERY VENTILATOR	8.8A	240	1	NA	MECH	MECH	ELEC	15A MOCP
IDH/1	INLINE DUCT HEATER	15.6A	240	1	NA	MECH	MECH	ELEC	20A MOCP
IDH/2	INLINE DUCT HEATER	93.8A	240	1	NA	MECH	MECH	ELEC	100A MOCP
EF/1	EXHAUST FAN	6W	120	1	NA	ELEC	–	MECH	

FINAL BREAKER OR FUSE SIZE PER MANUFACTURER.

* ELECTRICAL CONTRACTOR VERIFY SINGLE SPEED OR TWO SPEED STARTERS WITH MECHANICAL DRAWINGS.

KEYED NOTES (#)

1. TELEPHONE/DATA OUTLET. J-BOX, DEVICE PLATE, AND JACKS PER OWNERS SYSTEM. STUB 3/4" CONDUIT TO TELEPHONE BOARD OR AS REQUIRED BY OWNER.
2. LOCATE OUTLET(S) ABOVE COUNTER, SEE ARCHITECTURAL.
3. LOCATE OUTLET(S) UNDER COUNTER, SEE ARCHITECTURAL.

LICENSED PROFESSIONAL ENGINEER
No. 178785
DAVID M.
BEAZER
11.11.2024
STATE OF UTAH

BEAZER ENGINEERING INC.
P.O. BOX 652
MILLVILLE, UTAH 84326
C 435.770.8999
david@beazer-engineering.com

OWNERSHIP OF DOCUMENTS
These documents, including the designs and ideas incorporated herein, are the property of BEAZER ENGINEERING, INC. and shall not be used, in whole or in part, for any other project without written permission.

DATE
Nov. 11, 2024

PROJECT TITLE
Godfrey Orthodontics
340 W 3200 S
Nibley, UT 84321

SHEET TITLE
1ST FLOOR
POWER PLAN
SCALE: 1/4"=1'-0"

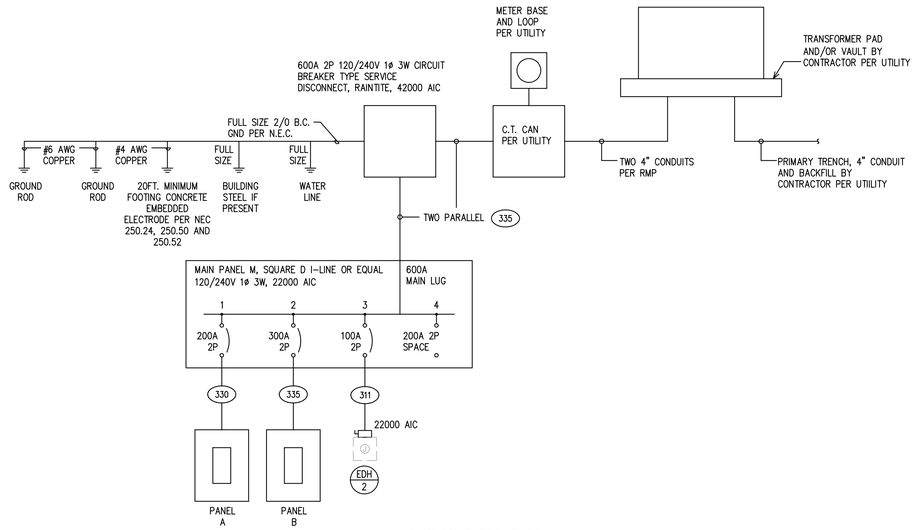
PROJECT NUMBER

REVISIONS

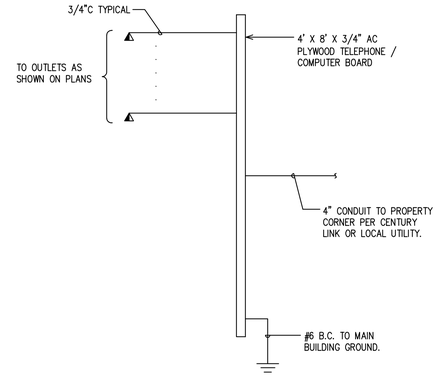
SHEET NUMBER
E2.1

SERVICE ENTRANCE & FEEDER CONDUIT–CONDUCTOR SCHEDULE					
TYPE	CONDUCTOR QUAN.	SIZE	COND SIZE	AMP	INSUL–ATION
20	2	10	3/4	30	THHN, THWN, XHHW
30	3	↓	↓	↓	↓
40	4	↓	↓	↓	↓
28	2	8	↓	40	↓
38	3	↓	1	↓	↓
48	4	↓	↓	↓	↓
26	2	6	↓	55	↓
36	3	↓	↓	↓	↓
46	4	↓	1 1/4	↓	↓
34	3	4	↓	70	↓
44	4	↓	↓	↓	↓
33	3	3	↓	85	↓
43	4	↓	↓	↓	↓
311	3	1	1 1/2	110	↓
411	4	↓	2	↓	↓
310	3	1/0	↓	150	↓
410	4	↓	↓	↓	↓
320	3	2/0	↓	175	↓
420	4	↓	↓	↓	↓
330	3	3/0	↓	200	↓
430	4	↓	2 1/2	↓	↓
340	3	4/0	↓	230	↓
440	4	↓	↓	↓	↓
325	3	250	↓	255	↓
425	4	↓	3	↓	↓
335	3	350	↓	310	↓
435	4	↓	↓	↓	↓
350	3	500	3 1/2	380	↓
450	4	↓	↓	↓	↓

PROVIDE GROUND IN ALL CONDUITS PER N.E.C. SIZE ACCORDING TO SERVICE OR EQUIPMENT GROUNDING TABLES, DEPENDING ON USE. EACH PARALLEL CONDUIT TO INCLUDED FULL SIZE GROUND.



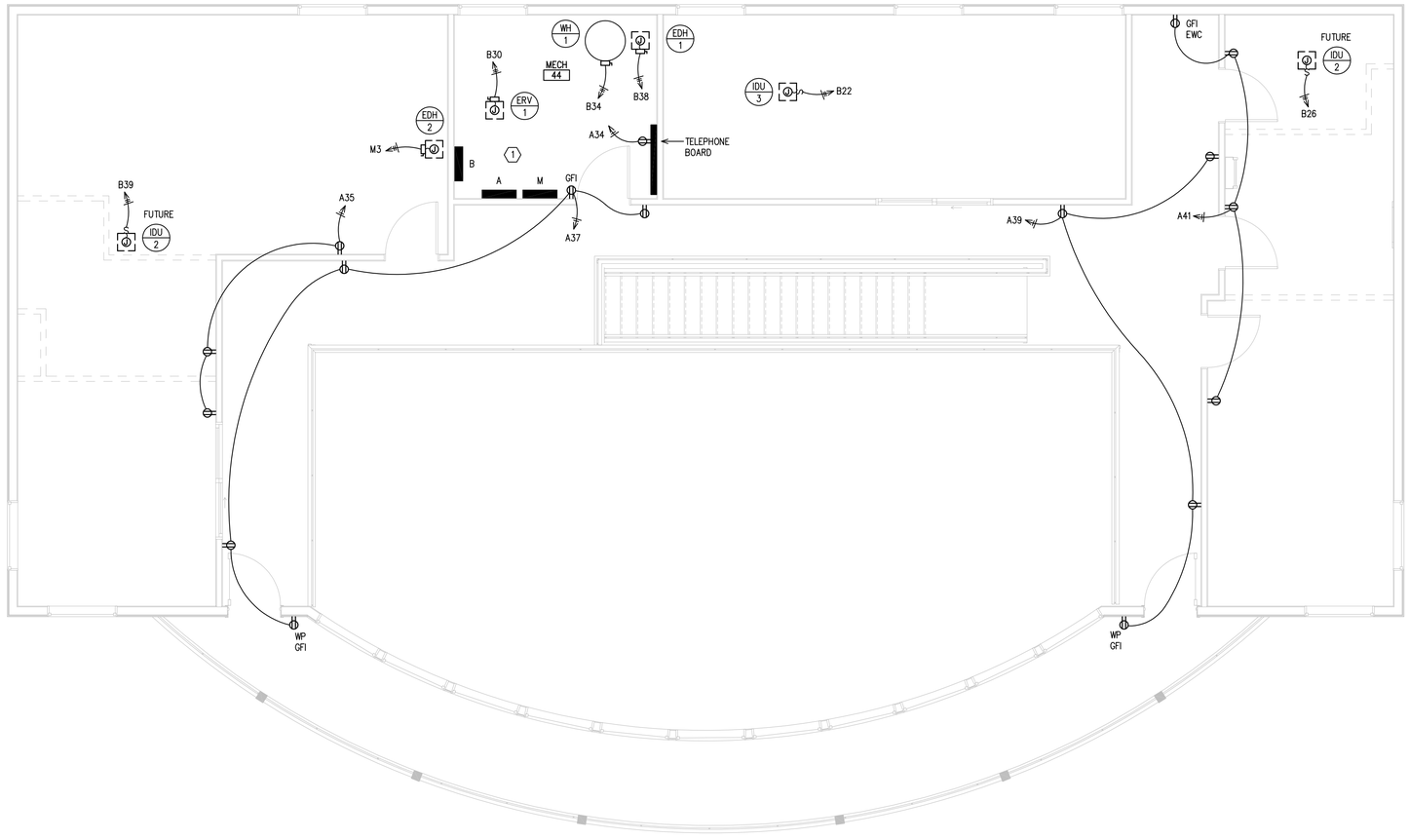
ONE LINE DIAGRAM



TELEPHONE RISER

KEYED NOTES (#)

1. VERIFY PANEL CLEARANCES NEEDED FOR PANEL FRONT AND ABOVE PANEL FOOTPRINT AND LOCATE PANELS ACCORDINGLY.



LICENSED PROFESSIONAL ENGINEER
No. 178785
DAVID M. BEAZER
11.11.2024
STATE OF UTAH

BEAZER ENGINEERING INC.
P.O. BOX 652
MILLVILLE, UTAH 84326
C 435.770.8999
david@beazer-engineering.com

OWNERSHIP OF DOCUMENTS
These documents, including the designs and ideas incorporated herein, are the property of BEAZER ENGINEERING, INC. and shall not be used, in whole or in part, for any other project without written permission.

DATE
Nov. 11, 2024

PROJECT TITLE
Godfrey Orthodontics
340 W 3200 S
Nibley, UT 84321

SHEET TITLE
2ND FLOOR POWER PLAN
SCALE: 1/4"=1'-0"

PROJECT NUMBER

REVISIONS

SHEET NUMBER
E2.2

PANEL A | [X] NEW [ ] EXISTING | TYPE NQOD | 1 ø 3 | WIRE 120/240 VOLTS | LOCATION | MOUNTING [ ] flush [X] surface

[ ] Bolt on breakers
[ ] Isolated ground bus

REMARKS

200 amp. main
[X] lugs [ ] breaker

No.	BRKR A	BRKR P	CIRCUIT DESCRIPTION	L	O	M	Wire	CIRC. LOAD	PHASE A	PHASE B	CIRC. LOAD	Wire	L	O	M	CIRCUIT DESCRIPTION	BRKR A	BRKR P	No.
1	20	1	OUTSIDE LIGHTS	X			12	260	1460		1200	12		2		3A-UTILITY CENTER	20	1	2
3			UPPER FLOOR LIGHTS	X				750		1950	1200			2					4
5			HIGH CEILING	X				780	1980		1200			2					6
7			CONSULT/FINANCE/XRAY/LOBBY	X				1020		2220	1200			2					8
9			CONSULT/OFFICE/RESTROOMS	X		3		1045	2245		1200			2					10
11	↓	↓	9C 120V			1		1200		2400	1200			2					12
13	20	2	9C 208V			1		1600	2800		1200			2		↓			14
15	–	–	–					1600		2600	1000			1		DENTAL CHAIR OUTLET			16
17	20	1	14A STERILIZER		1			1500	2500		1000			1					18
19			14A STERILIZER		1			1500		2500	1000			1					20
21			15		1			1300	2300		1000			1					22
23			15B		1			1900		2900	1000			1					24
25			23A			1		1200	2200		1000			1					26
27	↓	↓	27 VACUUM PUMP 120V		1			600		1600	1000			1					28
29	20	2	27 VACUUM PUMP 208V			1		1250	2250		1000			1					30
31	–	–	–					1250		2250	1000			1		↓	↓	↓	32
33	20	1	30 REMOTE WATER CONTROL	1				500	700		200	↓		1		TELEPHONE BOARD			34
35			UPPER FLOOR OUTLETS	3				600		600									36
37			|	5				1000	1000										38
39				4				800		800									40
41	↓	↓	↓	3			↓	600	600										42

TOTALS 20035 19820 AIC 22000

FEEDER 330

AMPS/PHASE 167 165 parallel runs 1

PANEL B | [X] NEW [ ] EXISTING | TYPE NQOD | 1 ø 3 | WIRE 120/240 VOLTS | LOCATION | MOUNTING [ ] flush [X] surface

[ ] Bolt on breakers
[ ] Isolated ground bus

REMARKS

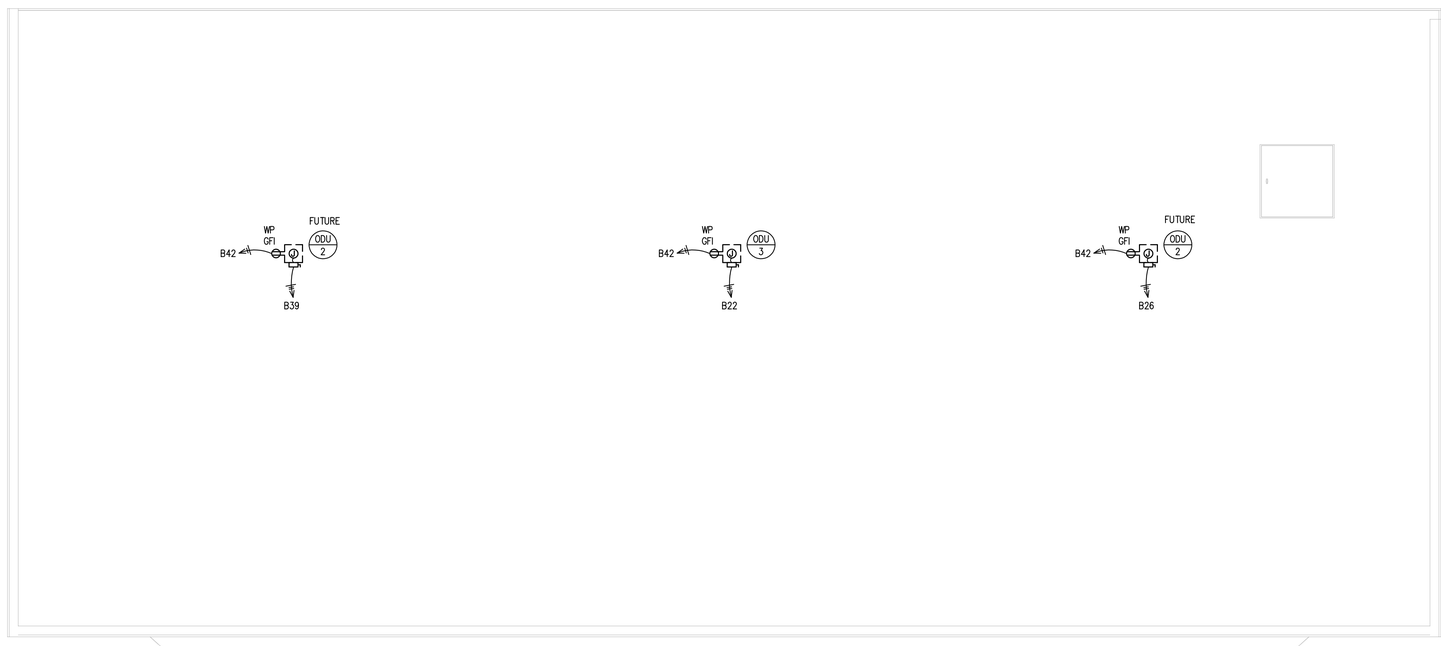
300 amp. main
[X] lugs [ ] breaker

No.	BRKR A	BRKR P	CIRCUIT DESCRIPTION	L	O	M	Wire	CIRC. LOAD	PHASE A	PHASE B	CIRC. LOAD	Wire	L	O	M	CIRCUIT DESCRIPTION	BRKR A	BRKR P	No.
1	20	1	CONSULT		4		12	800	1600		800	12		4		CONSULT	20	1	2
3			FINANCE OFFICE		4			800		1600	800			4		DR. OFFICE			4
5			XRAY		3			600	1400		800			4		RESTROOMS/LOBBY			6
7			CONSULT		4			800		1400	600			3		LOBBY			8
9			CONSULT		4			800	1400		600			3		STERILIZATION			10
11			XRAY REMOTE		1			200		1000	800			4		STERILIZATION			12
13			LOBBY		7			1400	1800		400			2		FRONT DESK			14
15			CLINIC		3			600		1000	400			2		|			16
17			|		2			400	800		400			2		|			18
19			↓		2			400		800	400	↓		2		↓	↓	↓	20
21	↓	↓	CLINIC HALL		5			1000	3250		2250	10			2	ODU/3 IDU/3	30	2	22
23	20	2	ODU/1 IDU/1			2		1450		3700	2250	|				–	–	–	24
25	–	–	–				↓	1450	3700		2250			2		ODU/2 IDU/2	30	2	26
27	30	2	ODU/2 IDU/2			2	10	2250		4500	2250	↓				–	–	–	28
29	–	–	–					2250	3300		1050	12		1		ERV/1	15	2	30
31	30	2	ODU/3 IDU/3			2		2250		3300	1050	12				–	–	–	32
33	–	–	–					2250	4500		2250	10		1		WH/1	25	2	34
35	30	2	ODU/3 IDU/3			2		2250		4500	2250	10				–	–	–	36
37	–	–	–					2250	4150		1900	12		1		IDH/1	20	2	38
39	30	2	ODU/2 IDU/2			2		2250		4150	1900	12				–	–	–	40
41	–	–	–				↓	2250	2850		600	12		3		ROOFTOP OUTLETS	20	1	42

TOTALS 28750 25950 AIC 22000

FEEDER 335

AMPS/PHASE 240 216 parallel runs 1



BEAZER ENGINEERING INC.
P.O. BOX 652
MILLVILLE, UTAH 84326
C 435.770.8999
david@beazer-engineering.com

OWNERSHIP OF DOCUMENTS
These documents, including the designs and ideas incorporated herein, are the property of BEAZER ENGINEERING, INC. and shall not be used, in whole or in part, for any other project without written permission.

DATE
Nov. 11, 2024

PROJECT TITLE
Godfrey Orthodontics
340 W 3200 S
Nibley, UT 84321

SHEET TITLE
ROOF
ELECTRICAL PLAN
SCALE: 1/4"=1'-0"

PROJECT NUMBER

REVISIONS

SHEET NUMBER
E2.3

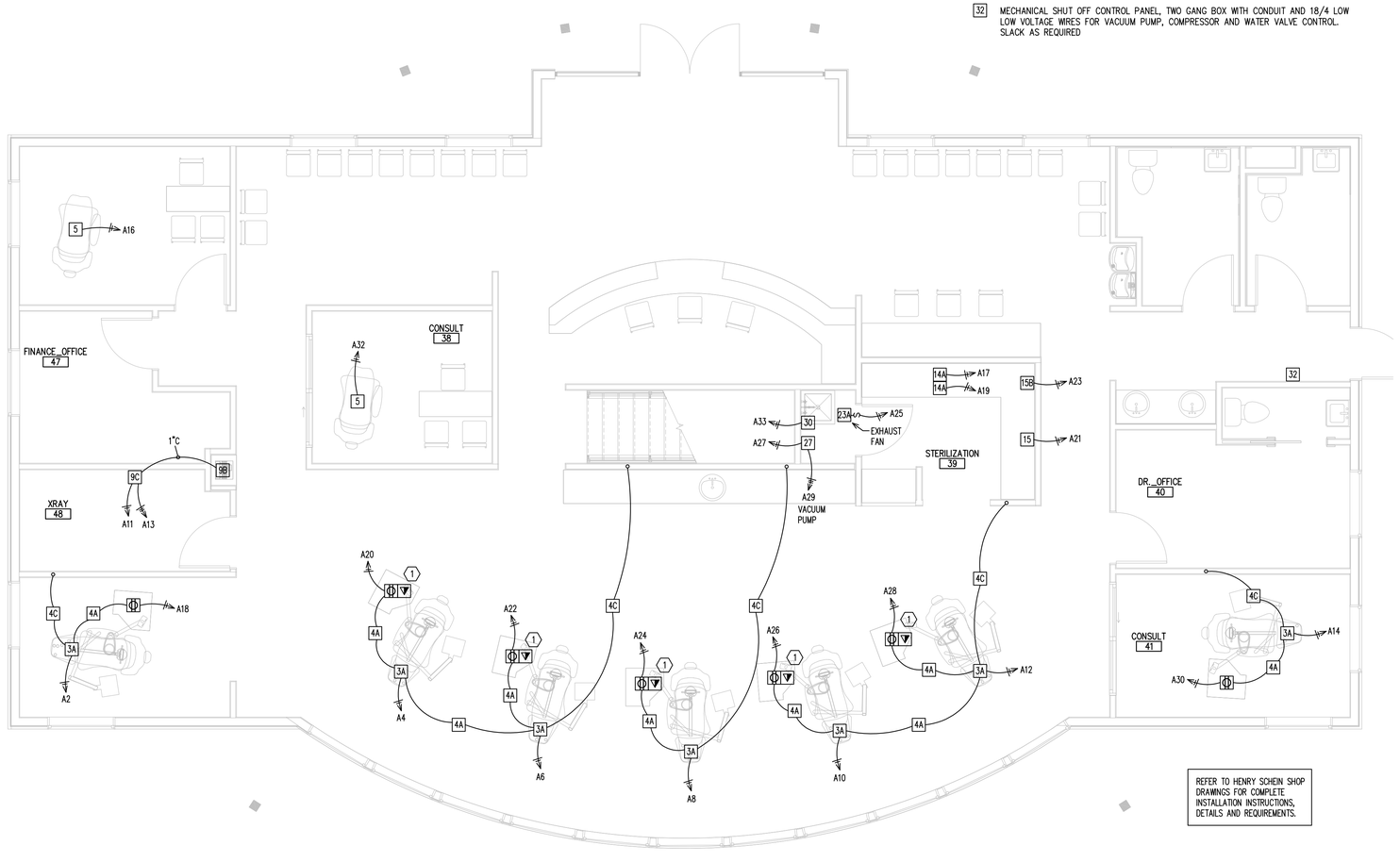
KEYED NOTES (#)

1. TELEPHONE/DATA OUTLET IN FLOOR BOX AS REQUIRED. J-BOX, DEVICE PLATE, AND JACKS PER OWNERS SYSTEM. STUB 3/4" CONDUIT TO TELEPHONE BOARD OR AS REQUIRED BY OWNER.

DENTAL EQUIPMENT [XX]

REFER TO HENRY SCHEIN SHOP DRAWINGS FOR COMPLETE INSTALLATION INSTRUCTIONS, DETAILS AND REQUIREMENTS

- [3A] UTILITY CENTER, DOUBLE DUPLEX OUTLET WITH 10A DEDICATED CIRCUIT
- [4A] 2" SUBFLOOR CONDUIT WITH PULL STRING
- [4C] 2" CONTINUOUS CONDUIT WITH PULL STRING
- [5] DENTAL CHAIR OUTLET, RECESSED DUPLEX OUTLET WITH DEDICATED CIRCUIT
- [9B] X-RAY REMOTE EXPOSURE STATION, SINGLE GANG J-BOX WITH 1" C TO "9C"
- [9C] PANORAMIC IMAGING UNIT: 1-SINGLE GANG J-BOX WITH 1" C TO "9B", 2-SINGLE GANG J-BOX TO CEILING FOR DATA, 3-208V CIRCUIT, 4-120V CIRCUIT
- [14A] STERILIZER (AUTOCLAVE), DUPLEX OUTLET WITH DEDICATED CIRCUIT FOR EACH
- [15] ULTRASONIC CLEANER, DUPLEX OUTLET WITH DEDICATED CIRCUIT
- [15B] HANDPIECE MAINTENANCE SYSTEM, DUPLEX OUTLET WITH DEDICATED CIRCUIT
- [23A] EXHAUST FAN FOR DENTAL MECHANICAL CLOSET
- [27] VACUUM PUMP: 1-TWO GANG BOX FOR 208V PUMP CIRCUIT, 2-SINGLE GANG BOX FOR 120V NEMA 5-15R SIMPLEX OUTLET FOR MONITOR MASTER CONTROL, 3-RIGID CONDUIT WITH 18/4 LOW VOLTAGE WIRES TO REMOTE SHUT OFF
- [30] REMOTE WATER CONTROL VALVE, SIMPLEX OUTLET WITH DEDICATED CIRCUIT
- [32] MECHANICAL SHUT OFF CONTROL PANEL, TWO GANG BOX WITH CONDUIT AND 18/4 LOW LOW VOLTAGE WIRES FOR VACUUM PUMP, COMPRESSOR AND WATER VALVE CONTROL. SLACK AS REQUIRED



LICENSED PROFESSIONAL ENGINEER
No. 178785
DAVID W. BEAZER
11.11.2024
STATE OF UTAH

BEAZER ENGINEERING INC.
P.O. BOX 652
MILLVILLE, UTAH 84326
C 435.770.8999
david@beazer-engineering.com

OWNERSHIP OF DOCUMENTS
These documents, including the designs and ideas incorporated herein, are the property of BEAZER ENGINEERING, INC. and shall not be used, in whole or in part, for any other project without written permission.

DATE
Nov. 11, 2024

PROJECT TITLE
Godfrey Orthodontics
340 W 3200 S
Nibley, UT 84321

SHEET TITLE
1ST FLOOR DENTAL EQUIPMENT PLAN
SCALE: 1/4"=1'-0"

PROJECT NUMBER

REVISIONS

SHEET NUMBER
E3.1

Part 1 – General

1. The mechanical contractor shall be an experienced firm regularly engaged in the installation of commercial mechanical systems in accordance with local codes. The owner's representative may reject any proposed contractor who cannot show evidence of such qualifications
2. Visit the jobsite prior to bidding, prior to material fabrication and prior to equipment procurement to become familiar with the existing conditions, interferences and any discrepancies.
3. The mechanical contractor shall proved all labor, material, equipment, equipment supports, diffusers and grilles for the HVAC systems finish as required to ensure a complete and operable HVAC system. Furnish all paint, labor, equipment, appliances and materials, and perform all operations in connection with the installation of the heating, ventilation, and air conditioning systems in strict accordance with the drawings. Successful, trouble-free operation of vibration-free system is a perquisite.
4. The mechanical contractor shall schedule all work so as not to interfere and/or disrupt the daily activities and/or operating hours or nearby buildings. Coordinate as required with the general contractor and the owner's representative.
5. The mechanical contractor shall obtain and pay for all fees and permits relating to his work.
6. The new HVAC systems shall be installed in accordance with state and local codes, OSHA, NFPA, SMACNA and ASHRAE guidelines.

Part 2 – Ductwork

1. All duct shall be fabricated from galvanized steel in accordance with SMANCA standards and requirements. Nonmetallic ductwork shall not be used. Concealed supply and return ductwork shall be galvanized steel.
2. Provide flexible contractors between ductwork and HVAC equipment (air handling equipment).
3. All new rectangular supply and return air ductwork shall have 1" thick acoustic duct liner insulation. Duct dimensions shown on the drawings represent inside duct size.
4. Manual balancing dampers shall be opposed blade type, galvanized steel, and shall have locking quadrant operators or extended concealed ceiling operators where access is limited and/or at gypsum board ceilings.
5. Provide turning vanes in all new rectangular supply and return air ductwork elbows. Proved volume dampers with locking quadrants at each new supply air branch take-off, seal all duct joints. Where the volume damper is not accessible, provide young No. 817A or 617B, consisting of an 3/8" square shaft, and a 3/8" regulator (length as required) for operating the volume damper from suspended ceiling.
6. The new duct lining shall be one inch thick fiberglass, 1-1/2 pounds per cubic foot density, noise attenuation factor of NRC = 0.70 with air stream surface faced with a black coated matte.
7. The required fire hazard classification is: flame spread not over 25, fuel contributed not over 50, smoke developed not over 50 when tested in accordance with ASTM E84

Duct Size:	Gauge:	Support:	Spacing:
12" and under	26 GA.	(2) 1"X 22 GA. Straps	Every 10 Ft.
13" to 30"	24 GA.	(2) 1"X 18GA. Straps	Every 10 Ft.
31" to 40"	22 GA.	(2) 1"X 18GA. Straps	Every 10 Ft.
40" and over	20 GA.	(2) 1"X 18GA. Straps	Every 10 Ft.

Part 3- Ductwork Insulation

1. All rectangular supply and return ductwork in the ceiling space shall have acoustic duct liner insulation. All round rigid metal take-off ductwork in the ceiling space shall have 1" thick external duct-wrap insulation with vapor barrier.
2. The finish duct lining shall be one inch thick fiberglass, 1-1/2 pounds per cubic foot density, noise attenuation factor of NRC =0.10 with the air stream surface faced with a black coated matte.
3. The duct-wrap insulation shall be one inch thick fiberglass 1-1/2 pounds per cubic foot density, noise attenuation facto of NRC =0.70.
4. The duct-wrap insulation shall have a thermal conductance of 0.24 BTUH per square foot per degree F. at a mean temperature of 50 degrees f.
5. The required fire hazard classification is: flame spread not over 25, fuel contributed not over 50, smoke developed not over 50 when tested in accordance with ASTM E84.
6. Insulated flexible ductwork meeting class 1 requirements of NFPA 90A and U.L. labeled may be used only at the ceiling diffuser connections in the concealed ceiling space areas and shall be insulated with 1" thick fiberglass insulation with vapor barrier with a flame spread rating of 25 or less and a smoke developed rating of 50 or less when tested in accordance with ASTM E84, and shall be limited to 5-feet in length.
7. Approved acoustic duct liner manufacturers are:
   a. Owens Corning QuietR Rotary Duct Liner
8. Approved external insulation manufacturers are:
   a. Manville Microlite FSK
   b. CSG Type IV Standard Duct Insulation
   c. Owens Corning FRK
   d. Knauf (Duct Wrap FSK)
9. Install insulation in a neat and workmanlike manner with no fishtails. Finish shall be smooth with all joints properly taped, insulation shall be full thickness uncompressed except where required to pass structural interferences.

Part 4 – Line Voltage Wiring

1. Line voltage wiring and conduit is by the electrical contractor shall furnish and disconnect switches that are not provided with the mechanical equipment as required for the HVAC equipment. Coordinate as required with the electrical contractor and the general contractor.

Part 5 – Temperature Controls and Wiring

1. Automatic temperature controls and associated conduit and control wiring shall be by the mechanical contractor provide all devices, components, conduit, control wiring as required to ensure complete operable automatic temperature control systems. New furnace unit shall have new programmable thermostats with automatic changeover and night set-back control. New unit heaters shall have heating thermostats with summer fan switch control.
2. Verify thermostat rough-in locations as shown on the mechanical plan drawing with the owner's representative prior to rough-in installation.
3. All temperature controls are to be tested, adjusted and calibrated for proper operation
4. Refer to the mechanical equipment schedule for additional temperature control requirements.

Part 6 – Installation

1. Coordinate the new HVAC equipment locations with the building structure, the owner's representative, architect, structural engineer, and the general contractor as required prior to installation
2. Coordinate the equipment, controls and cutwork installations with the other trades, plumbing piping, conduit, etc., coordinate the ceiling diffuser return air grilles and exhaust grille locations, with the electrical drawings and the architectural reflected ceiling plan. Route the ductwork so as not to interfere with the structure or the removing and services of light fixtures. Changes required as a result of neglect to coordinate interferences will be made at the mechanical contractor's expense.
3. Run all new ductwork as tight as possible to the bottom of the structure in the dropped ceiling space in order to maintain the finished ceiling heights as schedules on the architectural drawings. Verify the duct height dimensions with available ceiling space and modify the duct sizes if necessary (keeping the same duct area as shown on the mechanical drawings – duct height dimension shall not be less that 8") to accommodate any interferences. Coordinate the new ductwork in the space with conduit and piping. Field verify the routing of ductwork and equipment and piping.
4. Locate all exhaust air outlets and flue vents 10'-0' minimum distance from mechanical equipment outside air intakes.
5. It is understood that while drawings are to be followed as closely as circumstances permit. The mechanical contractor will be held responsible for installation of systems according to the true intent and meaning of contract documents. Anything not clear or in conflict will be explained by making application to architect. Should condition arise where certain changes would be advisable secure approval of those changes before proceeding with work.
6. Arrange ducts and equipment to permit ready access to valves, unions, traps, starters, motors, control components, and to clear opening of doors and access panels.
7. Furnish and install hangers and supports required by the mechanical contractor unless otherwise noted. Furnish sleeves, supports, and equipment that are integral part of other contractor's work in sufficient time to be built into construction as the work proceeds. Locate these items and see that they are properly installed. Expense resulting from improper location or installation of items above shall be borne by the mechanical contractor.
8. Adjust the location of the finish ducts, equipment, etc., to eliminate interference anticipated and encountered. Determine exact route and location of ductwork prior to fabrications. Make offsets, transitions, and changes in direction of ducts as required to maintain proper clearances whether or not indicated on the drawings. Furnish and install fittings as required to effect these offsets, transitions, and changes in direction.
9. Ensure the new HVAC equipment to be furnished along with the ductwork fit in space available. Make necessary field measurements to ascertain and space requirements including those for connections and furnish and install equipment of size and shape so that final installation reflects true intent and meaning of contract documents.
10. Follow manufacturer's direction in delivery, storage, protection, and installation of equipment and materials. Promptly notify architect and/or owner's representative in writing of conflicts between requirements of contract documents and manufacturer's directions and obtain architect's and/or owner's representative written instruction before proceeding with work. Bear expenses for correcting deficiencies of work that do not comply with manufacturer's directions or written instructions.
11. Deliver equipment and material to site and tightly cover and protect against dirt, water, and chemical or mechanical injury. Equipment and material shall be readily accessible for inspection. Store items subject to moisture damage (such as controls) in a dry heated space.
12. All mechanical equipment shall be isolated from the structure with either vibration isolation pads or spring type isolators as applicable to the installation, whether motor is internally isolated or not.
13. Contractor to verify and provide mechanical piping for heating and cooling systems to be thermally insulated per IECC C403.2.10. Mechanical Contractor to verify maximum and minimum temperatures of the mechanical piping so minimum insulations requirements can be met.

Part 7 – Submittals

1. By description, catalog number and specific designation, standards are established for manufactured items such as specialties, fixtures and equipment which the contractor shall furnish as required by this section. Prior to approval is required for substitution of equipment and materials prior to bid. Substitution of products shown shall be submitted to the architect, the owner's representative or engineer for written approval.
   a. Acceptable HVAC equipment manufacturers are: York, Carrier, Lennox and Trane.
2. Shop drawings and up-to-date engineering data sheets and catalog information shall be furnished on the following items of equipment. Provide (6) copies for review.
   1) HVAC equipment
   2) Automatic temperature controls.
   3) All diffusers, grilles, etc.
   4) Ductwork fabrication methods.
   5) Exhaust fans.

Part 8 – Filters

1. Install throw-away filters at the new furnace heating and cooling unit after system start-up. Install 30% efficient 2-inch thick pleated filters – size and quality shall be in accordance with the equipment manufacturer's written instructions.

Part 9 – Cutting and Patching

1. The general contractor shall be responsible for required cutting, and patching incident to work for this division the cost of which shall be paid for by the mechanical contractor. The general contractor shall make required repairs afterwards to satisfaction of architect and/or owner's representative. Cut carefully to minimize necessity for repairs to existing work. Do no cut beams, columns or trusses. Patch and repair walls, floors, ceiling, and roofs with materials of same quality and appearance as adjacent surfaces unless otherwise shown. Surface finishes shall exactly match existing finishes of same materials.
2. The mechanical contractor shall bear expense of cutting, patching, repairing, and replacing of work of other contractors required because of its fault, error, tardiness, or because of damage done by mechanical contractor.

Part 10 – Fire Assembly Penetrations

1. Coordinate requirements with the electrical contractor, general contractor, architect, the owner's representative and the local authorities having jurisdiction.
2. Provide U.L. fire penetration system number WL1002, FC1002, FC2008, FC3001 or FC1001 for combustible construction or system number WL1002, WL2002, FA5001, or FA8001 for non-combustible construction of the U.L. building materials directory and as required by the authorities having jurisdiction.
3. All penetrations through fire rated assemblies shall comply with U.L. fire resistance directory, latest adopted edition.
4. Provide U.L. listed fire dampers with fusible links constructed to U.L. Standard 33 and U.L. listed fire/smoke dampers with smoke detectors conforming to NFPA 90A and meeting UL555 requirements as required y state and local codes, including any additional fire dampers and/or fire/smoke dampers with smoke detectors that may be required, even if not shown on the mechanical drawings. Provide firestop system as required by local codes and ordinances.
5. Provide smoke detectors and wiring control as required for operation of fire/smoke dampers.

Part 11 – Seismic Bracing

1. The mechanical contractor shall furnish and install required seismic bracing, restraints, equipment isolators, etc. for his installed equipment. All of which shall comply with PPIC and SMACNA guidelines for the local seismic zone requirements and in accordance with the authorities having jurisdiction.

Part 12 – As-Built Drawings

1. The mechanical contractor shall keep a record set of drawings neatly marked with all changes from the original design and drawings. These drawings shall be delivered to the architect and/or owner's representative at the completion of the project and prior to receiving final payment.

Part 13 – Check, Test and Start-Up

1. The Mechanical contractor shall provide material and labor required to perform start-up of each respective item of equipment and system prior to the beginning of test, adjust and balance procedures. Submit start-up report to the architect and/or owner's representative.

Part 14 – Testing, Adjusting and Balancing.

1. The Mechanical contractors shall pay for the services of an independent air balancing contractor who is certified and approved by the architect and/or the owner's representative prior to bidding to perform testing adjusting and balancing of new HVAC systems Submit air balance report and AABC standards for field measurement & instruction, latest adopted edition.
2. The mechanical contractor shall make changes to pulleys, belts and dampers as recommended by the balancing contactor.

Part 15 – Equipment Identification

1. Equipment identification: Signs made of laminated plastic with 1/8" or larger engraved letters. Signs shall e securely attached by rust proof screws or some other permanent means.
2. All HVAC equipment shall have equipment identification. Information on the signs shall include: mechanical equipment schedule symbol, name of equipment, rating, electrical characteristics and any other important data.

Part 16 – Operation and Maintenance Manuals

1. Provide three (3) sets of bound operation and maintenance manuals covering all new HVAC equipment for the owner's use. O&M manuals shall have the following format:
   a. Size: 8-1/2"X 11"
   b. Paper: Manufacturer's printed data, or neatly type written.
   c. Provide reinforced punched binder tab, bind in with text.
   d. Provide fly-leaf for each separate product, or each piece of operating equipment. Provide typed description of product, and major component parts of equipment, provide indexed tabs.
   e. Cover: Identify each volume with typed or printed title: "Operation and Maintenance instruction". List title of project, identity of general subject matter covered in the manual.
   f. Binders: Commercial quality three-ring binders with durable and cleanable plastic covers.
   g. Provide neatly typewritten table of contents, list contractor name, address and phone number. List each product by product name and other identifying symbols as set forth in contract documents.
   h. Include copy of each warranty, bond and service chart with maintenance schedule, temperature control diagrams, sequence of operation and provide logical sequence of instruction for each procedure.

Part 17 – Instructions

1. Prior to final inspection or acceptance, fully instruct the owner's designated operation and maintenance personnel in the operation, adjustment and maintenance of products, equipment and systems. (Minimum 2-hours instruction required or more if requested by the owner's representative).

Part 18 – Warranty and Guarantee

1. The mechanical contractor shall provide one (1) year parts and labor warranty for his installed work and HVAC equipment after equipment start-up and the owner's representatives acceptance. Should any trouble develop during this period due to defective materials or faulty workmanship the contractor shall furnish all necessary labor and materials to correct the trouble without any additional cost. Any materials found to be defective during the guarantee period shall be corrected immediately to the entire satisfaction of the owner.

MECHANICAL SYMBOLS

- SD# / ### — SUPPLY DIFFUSER, SD#, ### CFM ARROWS INDICATE DIRECTION OF THROUGH
- SD# / ### — SUPPLY DIFFUSER (4-WAY)
- RG# / ### — RETURN OR EXHAUST REGISTER TYPE 'RG#' ### CFM
- EG# / ### — EXHAUST REGISTER TYPE 'EG#' ### CFM
- ### / ### — SIDEWALL SUPPLY, RETURN, OR EXHAUST REGISTER TYPE ### , ### CFM
- SUPPLY DUCT UP
- SUPPLY DUCT DOWN
- RETURN DUCT UP
- RETURN DUCT DOWN
- EXHAUST DUCT UP
- EXHAUST DUCT DOWN
- AIRFLOW / SA — SUPPLY AIR BRANCH CONNECTION WITH VOLUME DAMPER
- AIRFLOW / RA/EA — RETURN AIR/EXHAUST AIR BRANCH CONNECTION WITH VOLUME DAMPER
- HORIZONTAL FIRE DAMPER
- VERTICAL FIRE DAMPER
- FS — COMBINATION FIRE/SMOKE HORIZONTAL FIRE DAMPER
- FS — COMBINATION FIRE/SMOKE VERTICAL FIRE DAMPER

MECHANICAL PHASING

(SINGLE LINES SHOWN SIMILAR FOR DOUBLE LINED WORK)

- MECHANICAL PROPOSED
- MECHANICAL EXISTING TO REMAIN
- MECHANICAL FOR DEMOLITION
- POINT OF CONNECTION BETWEEN NEW AND EXISTING
- EXTENT OF DEMOLITION

MECH. ABREVIATIONS

EXISTING	(E)
ABOVE FINISHED FLOOR	AFF
AIR HANDLING UNIT	AHU
BRITISH THERMAL UNIT	BTU
COMBUSTION AIR	CA
CUBIT FEET PER MINUTE	CFM
CONDENSING UNIT	CU
CABINET UNIT HEATER	CUH
DOWN	DN
EXHAUST AIR	EA
EXHAUST VENTILATOR	EV
FAN COIL UNIT	FCU
HORSE POWER	HP
KILOWATT	KW
1,000 BTU'S	MBH
NATURAL GAS	NG
OUTSIDE AIR	OA
PACKAGED TERMINAL AIR CONDITIONER	PTAC
RETURN AIR	RA
REFRIGERANT	REF
RETURN GRILLE	RG
RADIANT HEATER	RH
ROOF TOP UNIT	RTU
SUPPLY AIR	SA
SUPPLY DIFFUSER	SD
SUPPLY GRILLE	SG
TRANSFER GRILLE	TG
12,000 BTU'S	TON
TYPICAL	TYP
UNIT HEATER	UH
WATTS	W

CONSTRUCTION NOTES

DATE

JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT # 24SM5632

REGISTERED PROFESSIONAL ENGINEER — No. 169278 — DON I. OLSEN — STATE OF UTAH — 1/7/25

SCALES

12" = 1'-0"

0 1"

BAR SCALE MEASURES 1" ON A FULL SIZE SHEET. ADJUST AS APPROPRIATELY

PROJECT NAME:

GODFREY DENTAL OFFICE

PROJECT LOCATION:

340 W 3200 S
NIBLEY, UT 84321

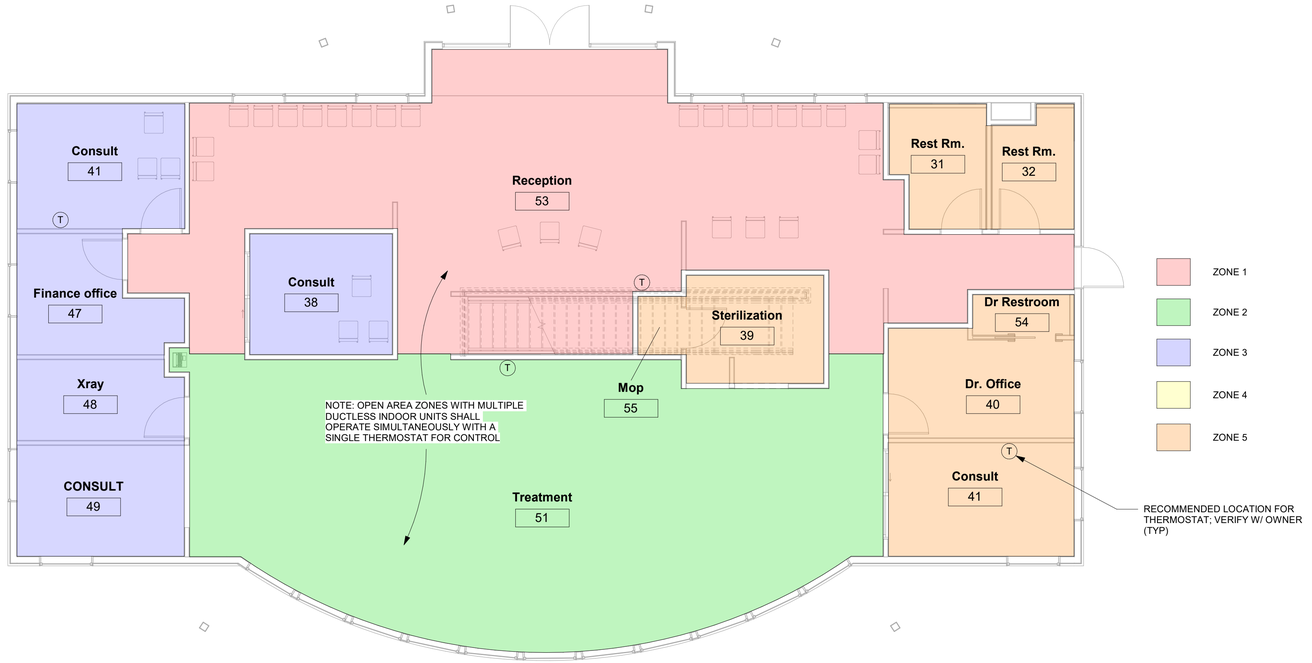
SHEET TITLE:

MECHANICAL GENERAL NOTES

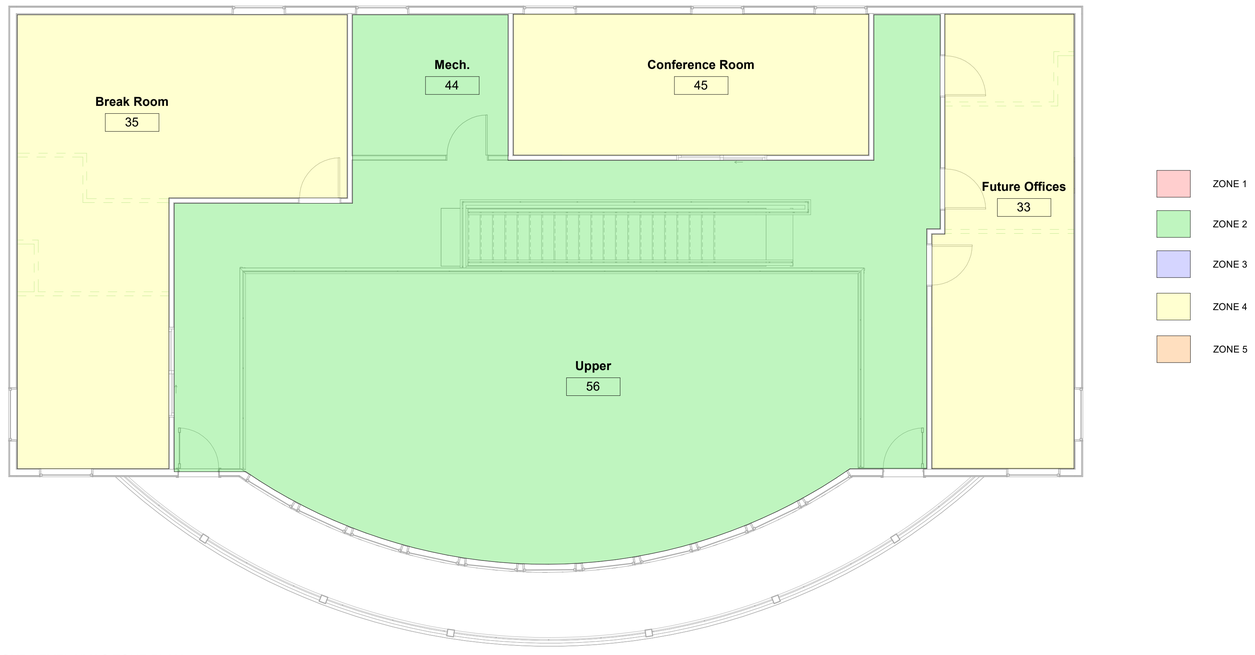
PLAN SET: PERMIT

SHEET M0.1

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_ductless.rvt



1 FIRST LEVEL HVAC ZONE PLAN
3/16" = 1'-0"



2 SECOND LEVEL HVAC ZONE PLAN
3/16" = 1'-0"

CONSTRUCTION NOTES

DATE
JANUARY 2025

epic ENGINEERING

REVISIONS		
MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT #
24SM5632

REGISTERED PROFESSIONAL ENGINEER No. 169278 DON I. OLSEN STATE OF UTAH

SCALES
3/16" = 1'-0"
0 1"
BAR SCALE MEASURES 1" ON A FULL SIZE SHEET. ADJUST PRINT IF PAPER SIZE CHANGES

PROJECT NAME:
GODFREY DENTAL OFFICE

PROJECT LOCATION:
340 W 3200 S
NIBLEY, UT 84321

SHEET TITLE:
HVAC ZONING

PLAN SET: PERMIT
SHEET M0.2

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_ductless.rvt

Air System Sizing Summary for Godfrey_Zone 1
(In Alternative: Godfrey_heat pumps)

Project: Godfrey — 12/18/2024
Prepared by: EPIC ENGINEERING — 9:23 AM

Air System Information

Air System Name	Godfrey_Zone 1	Number of zones	1
Equipment Class	UNDEF	Floor Area	1014.9 sqft
Air System Type	SZCAV	Location	Logan-Cache Ap, UT, USA

Sizing Calculation Information

Calculation Months	Jan to Dec	Zone CFM Sizing	Sum of space airflow rates
Sizing Data	Calculated	Space CFM Sizing	Individual peak space loads

Central Cooling Coil Sizing Data

Total coil load	1.5	Tons	Peak coil load occurs at	August 15:00	
Total coil load	18.1	MBH	OA DB / WB	94.8 / 61.6	F
Sensible coil load	17.4	MBH	Entering DB / WB	76.1 / 62.0	F
Coil CFM at peak load	1004	CFM	Leaving DB / WB	57.6 / 55.5	F
Sum of peak zone CFM	1004	CFM	Resulting RH	50	%
Sensible heat ratio	0.959		Design supply temp.	58.0	F
CFM/Ton	664.8		Zone T-stat Check	1 of 1	OK
sqft/Ton	671.9		Max zone temperature deviation	0.0	F
BTU/(hr sqft)	17.9				
Water flow @ 10.0 F rise	3.63	gpm			

Central Heating Coil Sizing Data

Max coil load	18.6	MBH	Load occurs at	Design Heating	
Coil CFM at Design Heating	1004	CFM	BTU/(hr sqft)	18.3	
Max coil CFM	1004	CFM	Ent. DB / Lvg DB	65.9 / 86.0	F
Water flow @ 20.0 F drop	1.86	gpm			

Supply Fan Sizing Data

Design CFM	1004	CFM	Fan motor BHP	0.55	BHP
Design CFM/sqft	0.99	CFM/sqft	Fan motor kW	0.44	kW
			Fan total static	2.00	in wg

Outdoor Ventilation Air Data

Design airflow CFM	112	CFM	CFM/person	11.00	CFM/person
CFM/sqft	0.11	CFM/sqft			

Zone Sizing Summary for Godfrey_Zone 1
(In Alternative: Godfrey_heat pumps)

Project: Godfrey — 12/18/2024
Prepared by: EPIC ENGINEERING — 9:23 AM

Air System Information

Air System Name	Godfrey_Zone 1	Number of zones	1
Equipment Class	UNDEF	Floor Area	1014.9 sqft
Air System Type	SZCAV	Location	Logan-Cache Ap, UT, USA

Sizing Calculation Information

Calculation Months	Jan to Dec	Zone CFM Sizing	Sum of space airflow rates
Sizing Data	Calculated	Space CFM Sizing	Individual peak space loads

Zone Terminal Sizing Data

Zone Name	Design Supply Airflow (CFM)	Minimum Supply Airflow (CFM)	Zone CFM/sqft	Reheat Coil Capacity (MBH)	Reheat Coil Water gpm @ 20.0 F	Zone Htg Unit Coil Capacity (MBH)	Zone Htg Unit Water gpm @ 20.0 F	Mixing Box Fan Airflow (CFM)
Zone 1	1004	1004	0.99	0.0	0.00	0.0	0.00	0

Zone Peak Sensible Loads

Zone Name	Zone Cooling Sensible (MBH)	Time of Peak Sensible Cooling Load	Zone Heating Load (MBH)	Zone Floor Area (sqft)
Zone 1	15.7	August 15:00	16.6	1014.9

Space Loads and Airflows

Zone Name / Space Name	Cooling Sensible (MBH)	Time of Peak Sensible Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (sqft)	Space CFM/sqft
Zone 1						
RECEPTION	15.7	August 15:00	1004	16.6	1014.9	0.99

Air System Heat Balance Summary for Godfrey_Zone 1
(In Alternative: Godfrey_heat pumps)

Project: Godfrey — 12/18/2024
Prepared by: EPIC ENGINEERING — 9:23 AM

Table 1. System Loads

	DESIGN COOLING - AUGUST 15:00 OA DB / WB 94.8 F / 61.6 F			DESIGN HEATING OA DB / WB -5.8 F / -7.1 F		
COMPONENT LOADS	Details	Sensible [BTU/hr]	Latent [BTU/hr]	Details	Sensible [BTU/hr]	Latent [BTU/hr]
Zone Conditioning	-	14889	1698	-	16229	0
Plenum Load	-	0	0	-	0	0
Return Fan Load	1004 CFM	0	-	1004 CFM	0	-
Ventilation Load	112 CFM	995	-1046	112 CFM	3803	0
Supply Fan Load	1004 CFM	1489	-	1004 CFM	-1489	-
Zone Fan Coil Fans Load	-	0	-	-	0	-
>> Total System Loads	-	17372	652	-	18544	0
Central Cooling Coil	-	17375	751	-	0	0
Central Heating Coil	-	0	-	-	18555	-
>> Total Conditioning	-	17375	751	-	18555	0
Key:	Positive values are cooling loads Negative values are heating loads			Positive values are heating loads Negative values are cooling loads		

Table 2. Zone Heat Balance Loads

	DESIGN COOLING - AUGUST 15:00 OA DB / WB 94.8 F / 61.6 F			DESIGN HEATING OA DB / WB -5.8 F / -7.1 F		
Zone Heat Balance Component	Details	Sensible [BTU/hr]	Latent [BTU/hr]	Details	Sensible [BTU/hr]	Latent [BTU/hr]
Exterior Wall Convection	542 sqft	1259	-	542 sqft	1583	-
Roof Convection	72 sqft	210	-	72 sqft	236	-
Window Convection	230 sqft	1260	-	230 sqft	2853	-
Skylight Convection	0 sqft	0	-	0 sqft	0	-
Door Convection	63 sqft	361	-	63 sqft	972	-
Floor Convection	1015 sqft	2449	-	1015 sqft	5303	-
Interior Wall Convection	1827 sqft	3125	-	1827 sqft	1747	-
Ceiling Convection	943 sqft	3011	-	943 sqft	2135	-
Overhead Lighting Convection	853 W	1817	-	0 W	0	-
Task Lighting Convection	0 W	0	-	0 W	0	-
Electric Equipment Convection	406 W	1039	-	0 W	0	-
People Convection	10	746	2081	0	0	0
Infiltration	21 CFM	379	-543	26 CFM	1781	0
Miscellaneous Equipment	-	0	0	-	0	0
Air Internal Energy Change	-	0		-	0	0
Safety Factor	0% / 0%	0	0	0%	0	0
>> Total Zone Loads	-	15656	1537	-	16609	0
Key:	Positive values are cooling loads Negative values are heating loads			Positive values are heating loads Negative values are cooling loads		

Note 1: Surface convection line items show the combined effects of conductive heat gain to the surface and radiative heat gains absorbed at the surface which are then convected to room air.

Note 2: Lighting, equipment, and people line items include only the direct convective heat gain from the heat source to the room air. The radiative portion of the heat gain is first absorbed by surfaces in the room and then later convected from the surface to the air. Therefore the effect of the radiative portion of the heat gain is found in the surface convection line items.

Note 3: Solar heat gain is absorbed by surfaces in the room, re-radiated to other surfaces, and finally convected from the surfaces to room air. Therefore, the effect of solar heat gain is found in the surface convection line items.

Air System Sizing Summary for Godfrey_Zone 2
(In Alternative: Godfrey_heat pumps)

Project: Godfrey — 12/18/2024
Prepared by: EPIC ENGINEERING — 9:23 AM

Air System Information

Air System Name	Godfrey_Zone 2	Number of zones	1
Equipment Class	UNDEF	Floor Area	2754.1 sqft
Air System Type	SZCAV	Location	Logan-Cache Ap, UT, USA

Sizing Calculation Information

Calculation Months	Jan to Dec	Zone CFM Sizing	Sum of space airflow rates
Sizing Data	Calculated	Space CFM Sizing	Individual peak space loads

Central Cooling Coil Sizing Data

Total coil load	4.9	Tons	Peak coil load occurs at	September 14:00	
Total coil load	58.8	MBH	OA DB / WB	87.0 / 58.0	F
Sensible coil load	58.8	MBH	Entering DB / WB	75.9 / 57.9	F
Coil CFM at peak load	3436	CFM	Leaving DB / WB	57.6 / 51.2	F
Sum of peak zone CFM	3436	CFM	Resulting RH	38	%
Sensible heat ratio	1.000		Design supply temp.	58.0	F
CFM/Ton	701.3		Zone T-stat Check	1 of 1	OK
sqft/Ton	562.2		Max zone temperature deviation	0.0	F
BTU/(hr sqft)	21.3				
Water flow @ 10.0 F rise	11.76	gpm			

Central Heating Coil Sizing Data

Max coil load	47.0	MBH	Load occurs at	Design Heating	
Coil CFM at Design Heating	3436	CFM	BTU/(hr sqft)	17.1	
Max coil CFM	3436	CFM	Ent. DB / Lvg DB	64.2 / 79.0	F
Water flow @ 20.0 F drop	4.70	gpm			

Supply Fan Sizing Data

Design CFM	3436	CFM	Fan motor BHP	1.88	BHP
Design CFM/sqft	1.25	CFM/sqft	Fan motor kW	1.49	kW
			Fan total static	2.00	in wg

Outdoor Ventilation Air Data

Design airflow CFM	541	CFM	CFM/person	26.29	CFM/person
CFM/sqft	0.20	CFM/sqft			

Zone Sizing Summary for Godfrey_Zone 2
(In Alternative: Godfrey_heat pumps)

Project: Godfrey — 12/18/2024
Prepared by: EPIC ENGINEERING — 9:23 AM

Air System Information

Air System Name	Godfrey_Zone 2	Number of zones	1
Equipment Class	UNDEF	Floor Area	2754.1 sqft
Air System Type	SZCAV	Location	Logan-Cache Ap, UT, USA

Sizing Calculation Information

Calculation Months	Jan to Dec	Zone CFM Sizing	Sum of space airflow rates
Sizing Data	Calculated	Space CFM Sizing	Individual peak space loads

Zone Terminal Sizing Data

Zone Name	Design Supply Airflow (CFM)	Minimum Supply Airflow (CFM)	Zone CFM/sqft	Reheat Coil Capacity (MBH)	Reheat Coil Water gpm @ 20.0 F	Zone Htg Unit Coil Capacity (MBH)	Zone Htg Unit Water gpm @ 20.0 F	Mixing Box Fan Airflow (CFM)
Zone 2	3436	3436	1.25	0.0	0.00	0.0	0.00	0

Zone Peak Sensible Loads

Zone Name	Zone Cooling Sensible (MBH)	Time of Peak Sensible Load	Zone Heating Load (MBH)	Zone Floor Area (sqft)
Zone 2	52.2	September 14:00	32.3	2754.1

Space Loads and Airflows

Zone Name / Space Name	Cooling Sensible (MBH)	Time of Peak Sensible Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (sqft)	Space CFM/sqft
Zone 2						
MECH	3.4	July 15:00	215	1.9	135.9	1.58
TREATMENT	22.9	September 15:00	1467	15.4	1028.1	1.43
UPPER LEVEL OPEN SPACE	27.3	October 13:00	1754	15.0	1590.1	1.10

Air System Heat Balance Summary for Godfrey_Zone 2
(In Alternative: Godfrey_heat pumps)

Project: Godfrey — 12/18/2024
Prepared by: EPIC ENGINEERING — 9:23 AM

Table 1. System Loads

	DESIGN COOLING - SEPTEMBER 14:00 OA DB / WB 87.0 F / 58.0 F			DESIGN HEATING OA DB / WB -5.8 F / -7.1 F		
COMPONENT LOADS	Details	Sensible [BTU/hr]	Latent [BTU/hr]	Details	Sensible [BTU/hr]	Latent [BTU/hr]
Zone Conditioning	-	50732	3289	-	33584	0
Plenum Load	-	0	0	-	0	0
Return Fan Load	3436 CFM	0	-	3436 CFM	0	-
Ventilation Load	541 CFM	2948	-2779	541 CFM	18413	0
Supply Fan Load	3436 CFM	5093	-	3436 CFM	-5093	-
Zone Fan Coil Fans Load	-	0	-	-	0	-
>> Total System Loads	-	58773	510	-	46904	0
Central Cooling Coil	-	58784	0	-	0	0
Central Heating Coil	-	0	-	-	46958	-
>> Total Conditioning	-	58784	0	-	46958	0
Key:	Positive values are cooling loads Negative values are heating loads			Positive values are heating loads Negative values are cooling loads		

Table 2. Zone Heat Balance Loads

	DESIGN COOLING - SEPTEMBER 14:00 OA DB / WB 87.0 F / 58.0 F			DESIGN HEATING OA DB / WB -5.8 F / -7.1 F		
Zone Heat Balance Component	Details	Sensible [BTU/hr]	Latent [BTU/hr]	Details	Sensible [BTU/hr]	Latent [BTU/hr]
Exterior Wall Convection	931 sqft	3078	-	931 sqft	2602	-
Roof Convection	1726 sqft	7026	-	1726 sqft	5466	-
Window Convection	736 sqft	9252	-	736 sqft	8983	-
Skylight Convection	0 sqft	0	-	0 sqft	0	-
Door Convection	42 sqft	510	-	42 sqft	774	-
Floor Convection	2754 sqft	9704	-	2754 sqft	7036	-
Interior Wall Convection	3010 sqft	6058	-	3010 sqft	2887	-
Ceiling Convection	1027 sqft	3512	-	1027 sqft	2485	-
Overhead Lighting Convection	2627 W	5599	-	0 W	0	-
Task Lighting Convection	0 W	0	-	0 W	0	-
Electric Equipment Convection	2222 W	5685	-	0 W	0	-
People Convection	21	1511	4215	0	0	0
Infiltration	24 CFM	270	-642	29 CFM	2043	0
Miscellaneous Equipment	-	0	0	-	0	0
Air Internal Energy Change	-	0		-	0	0
Safety Factor	0% / 0%	0	0	0%	0	0
>> Total Zone Loads	-	52206	3573	-	32275	0
Key:	Positive values are cooling loads Negative values are heating loads			Positive values are heating loads Negative values are cooling loads		

Note 1: Surface convection line items show the combined effects of conductive heat gain to the surface and radiative heat gains absorbed at the surface which are then convected to room air.

Note 2: Lighting, equipment, and people line items include only the direct convective heat gain from the heat source to the room air. The radiative portion of the heat gain is first absorbed by surfaces in the room and then later convected from the surface to the air. Therefore the effect of the radiative portion of the heat gain is found in the surface convection line items.

Note 3: Solar heat gain is absorbed by surfaces in the room, re-radiated to other surfaces, and finally convected from the surfaces to room air. Therefore, the effect of solar heat gain is found in the surface convection line items.

CONSTRUCTION NOTES

DATE
JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT # 24SM5632

REGISTERED PROFESSIONAL ENGINEER — No. 169276 — DON I. OLSEN — STATE OF UTAH — 7/24

SCALES
0 1" 2"
FOR SCALE MEASURES ON A FULL SIZE SHEET. ADJUST FOR REDUCTIONS.

PROJECT NAME:
GODFREY DENTAL OFFICE

PROJECT LOCATION:
340 W 3200 S
NIBLEY, UT 84321

SHEET TITLE:
HEAT LOSS CALCULATIONS

PLAN SET: PERMIT
SHEET M0.3

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_duct.rvt

Air System Sizing Summary for Godfrey_Zone 3
(In Alternative: Godfrey_heat pumps)

Project: Godfrey — 12/18/2024
Prepared by: EPIC ENGINEERING — 9:23 AM

Air System Information

Air System Name	Godfrey_Zone 3	Number of zones	1
Equipment Class	UNDEF	Floor Area	549.5 sqft
Air System Type	SZCAV	Location	Logan-Cache Ap, UT, USA

Sizing Calculation Information

Calculation Months	Jan to Dec	Zone CFM Sizing	Sum of space airflow rates
Sizing Data	Calculated	Space CFM Sizing	Individual peak space loads

Central Cooling Coil Sizing Data

Total coil load	1.3	Tons	Peak coil load occurs at	August 17:00	
Total coil load	15.8	MBH	OA DB / WB	92.7 / 60.9	F
Sensible coil load	15.8	MBH	Entering DB / WB	76.9 / 61.2	F
Coil CFM at peak load	885	CFM	Leaving DB / WB	57.9 / 54.6	F
Sum of peak zone CFM	885	CFM	Resulting RH	48	%
Sensible heat ratio	1.000		Design supply temp.	58.0	F
CFM/Ton	672.4		Zone T-stat Check	1 of 1	OK
sqft/Ton	417.5		Max zone temperature deviation	0.0	F
BTU/(hr sqft)	28.7				
Water flow @ 10.0 F rise	3.16	gpm			

Central Heating Coil Sizing Data

Max coil load	15.1	MBH	Load occurs at	Design Heating	
Coil CFM at Design Heating	885	CFM	BTU/(hr sqft)	27.5	
Max coil CFM	885	CFM	Ent. DB / Lvg DB	61.5 / 80.1	F
Water flow @ 20.0 F drop	1.51	gpm			

Supply Fan Sizing Data

Design CFM	885	CFM	Fan motor BHP	0.48	BHP
Design CFM/sqft	1.61	CFM/sqft	Fan motor kW	0.38	kW
			Fan total static	2.00	in wg

Outdoor Ventilation Air Data

Design airflow CFM	203	CFM	CFM/person	21.41	CFM/person
CFM/sqft	0.37	CFM/sqft			

Zone Sizing Summary for Godfrey_Zone 3
(In Alternative: Godfrey_heat pumps)

Project: Godfrey — 12/18/2024
Prepared by: EPIC ENGINEERING — 9:23 AM

Air System Information

Air System Name	Godfrey_Zone 3	Number of zones	1
Equipment Class	UNDEF	Floor Area	549.5 sqft
Air System Type	SZCAV	Location	Logan-Cache Ap, UT, USA

Sizing Calculation Information

Calculation Months	Jan to Dec	Zone CFM Sizing	Sum of space airflow rates
Sizing Data	Calculated	Space CFM Sizing	Individual peak space loads

Zone Terminal Sizing Data

Zone Name	Design Supply Airflow (CFM)	Minimum Supply Airflow (CFM)	Zone CFM/sqft	Reheat Coil Capacity (MBH)	Reheat Coil Water gpm @ 20.0 F	Zone Htg Unit Coil Capacity (MBH)	Zone Htg Unit Water gpm @ 20.0 F	Mixing Box Fan Airflow (CFM)
Zone 3	885	885	1.61	0.0	0.00	0.0	0.00	0

Zone Peak Sensible Loads

Zone Name	Zone Cooling Sensible (MBH)	Time of Peak Sensible Cooling Load	Zone Heating Load (MBH)	Zone Floor Area (sqft)
Zone 3	13.4	August 17:00	9.5	549.5

Space Loads and Airflows

Zone Name / Space Name	Cooling Sensible (MBH)	Time of Peak Sensible Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (sqft)	Space CFM/sqft
Zone 3						
CONSULT 37	4.1	July 18:00	261	3.1	137.2	1.90
CONSULT 38	1.7	September 18:00	108	0.1	103.4	1.04
CONSULT 49	4.0	September 15:00	254	3.4	123.5	2.06
FINANCE OFFICE 47	2.5	July 18:00	161	1.9	102.1	1.58
X-RAY 48	1.6	July 19:00	101	0.9	83.3	1.21

Air System Heat Balance Summary for Godfrey_Zone 3
(In Alternative: Godfrey_heat pumps)

Project: Godfrey — 12/18/2024
Prepared by: EPIC ENGINEERING — 9:23 AM

Table 1. System Loads

	DESIGN COOLING - AUGUST 17:00			DESIGN HEATING		
	OA DB / WB 92.7 F / 60.9 F			OA DB / WB -5.8 F / -7.1 F		
COMPONENT LOADS	Details	Sensible [BTU/hr]	Latent [BTU/hr]	Details	Sensible [BTU/hr]	Latent [BTU/hr]
Zone Conditioning	-	12884	1690	-	9508	0
Plenum Load	-	0	0	-	0	0
Return Fan Load	885 CFM	0	-	885 CFM	0	-
Ventilation Load	203 CFM	1592	-1661	203 CFM	6898	0
Supply Fan Load	885 CFM	1312	-	885 CFM	-1312	-
Zone Fan Coil Fans Load	-	0	-	-	0	-
>> Total System Loads	-	15789	28	-	15094	0
Central Cooling Coil	-	15794	0	-	0	0
Central Heating Coil	-	0	-	-	15114	-
>> Total Conditioning	-	15794	0	-	15114	0
Key:	Positive values are cooling loads Negative values are heating loads			Positive values are heating loads Negative values are cooling loads		

Table 2. Zone Heat Balance Loads

	DESIGN COOLING - AUGUST 17:00			DESIGN HEATING		
	OA DB / WB 92.7 F / 60.9 F			OA DB / WB -5.8 F / -7.1 F		
Zone Heat Balance Component	Details	Sensible [BTU/hr]	Latent [BTU/hr]	Details	Sensible [BTU/hr]	Latent [BTU/hr]
Exterior Wall Convection	678 sqft	2117	-	678 sqft	1932	-
Roof Convection	0 sqft	0	-	0 sqft	0	-
Window Convection	128 sqft	1814	-	128 sqft	1755	-
Skylight Convection	0 sqft	0	-	0 sqft	0	-
Door Convection	0 sqft	0	-	0 sqft	0	-
Floor Convection	550 sqft	1121	-	550 sqft	3173	-
Interior Wall Convection	1911 sqft	2520	-	1911 sqft	981	-
Ceiling Convection	549 sqft	1540	-	549 sqft	845	-
Overhead Lighting Convection	702 W	1496	-	0 W	0	-
Task Lighting Convection	0 W	0	-	0 W	0	-
Electric Equipment Convection	748 W	1913	-	0 W	0	-
People Convection	9	695	1939	0	0	0
Infiltration	9 CFM	148	-241	11 CFM	783	0
Miscellaneous Equipment	-	0	0	-	0	0
Air Internal Energy Change	-	0		-	0	0
Safety Factor	0% / 0%	0	0	0%	0	0
>> Total Zone Loads	-	13364	1698	-	9469	0
Key:	Positive values are cooling loads Negative values are heating loads			Positive values are heating loads Negative values are cooling loads		

Note 1: Surface convection line items show the combined effects of conductive heat gain to the surface and radiative heat gains absorbed at the surface which are then convected to room air.

Note 2: Lighting, equipment, and people line items include only the direct convective heat gain from the heat source to the room air. The radiative portion of the heat gain is first absorbed by surfaces in the room and then later convected from the surface to the air. Therefore the effect of the radiative portion of the heat gain is found in the surface convection line items.

Note 3: Solar heat gain is absorbed by surfaces in the room, re-radiated to other surfaces, and finally convected from the surfaces to room air. Therefore, the effect of solar heat gain is found in the surface convection line items.

Air System Sizing Summary for Godfrey_Zone 4
(In Alternative: Godfrey_heat pumps)

Project: Godfrey — 12/18/2024
Prepared by: EPIC ENGINEERING — 9:23 AM

Air System Information

Air System Name	Godfrey_Zone 4	Number of zones	1
Equipment Class	UNDEF	Floor Area	1314.2 sqft
Air System Type	SZCAV	Location	Logan-Cache Ap, UT, USA

Sizing Calculation Information

Calculation Months	Jan to Dec	Zone CFM Sizing	Sum of space airflow rates
Sizing Data	Calculated	Space CFM Sizing	Individual peak space loads

Central Cooling Coil Sizing Data

Total coil load	2.8	Tons	Peak coil load occurs at	August 15:00	
Total coil load	33.3	MBH	OA DB / WB	94.8 / 61.6	F
Sensible coil load	31.1	MBH	Entering DB / WB	76.1 / 62.2	F
Coil CFM at peak load	1765	CFM	Leaving DB / WB	57.3 / 55.4	F
Sum of peak zone CFM	1765	CFM	Resulting RH	51	%
Sensible heat ratio	0.935		Design supply temp.	58.0	F
CFM/Ton	635.4		Zone T-stat Check	1 of 1	OK
sqft/Ton	473.2		Max zone temperature deviation	0.0	F
BTU/(hr sqft)	25.4				
Water flow @ 10.0 F rise	6.67	gpm			

Central Heating Coil Sizing Data

Max coil load	23.0	MBH	Load occurs at	Design Heating	
Coil CFM at Design Heating	1765	CFM	BTU/(hr sqft)	17.5	
Max coil CFM	1765	CFM	Ent. DB / Lvg DB	65.6 / 79.7	F
Water flow @ 20.0 F drop	2.30	gpm			

Supply Fan Sizing Data

Design CFM	1765	CFM	Fan motor BHP	0.97	BHP
Design CFM/sqft	1.34	CFM/sqft	Fan motor kW	0.77	kW
			Fan total static	2.00	in wg

Outdoor Ventilation Air Data

Design airflow CFM	211	CFM	CFM/person	7.99	CFM/person
CFM/sqft	0.16	CFM/sqft			

Zone Sizing Summary for Godfrey_Zone 4
(In Alternative: Godfrey_heat pumps)

Project: Godfrey — 12/18/2024
Prepared by: EPIC ENGINEERING — 9:23 AM

Air System Information

Air System Name	Godfrey_Zone 4	Number of zones	1
Equipment Class	UNDEF	Floor Area	1314.2 sqft
Air System Type	SZCAV	Location	Logan-Cache Ap, UT, USA

Sizing Calculation Information

Calculation Months	Jan to Dec	Zone CFM Sizing	Sum of space airflow rates
Sizing Data	Calculated	Space CFM Sizing	Individual peak space loads

Zone Terminal Sizing Data

Zone Name	Design Supply Airflow (CFM)	Minimum Supply Airflow (CFM)	Zone CFM/sqft	Reheat Coil Capacity (MBH)	Reheat Coil Water gpm @ 20.0 F	Zone Htg Unit Coil Capacity (MBH)	Zone Htg Unit Water gpm @ 20.0 F	Mixing Box Fan Airflow (CFM)
Zone 4	1765	1765	1.34	0.0	0.00	0.0	0.00	0

Zone Peak Sensible Loads

Zone Name	Zone Cooling Sensible (MBH)	Time of Peak Sensible Cooling Load	Zone Heating Load (MBH)	Zone Floor Area (sqft)
Zone 4	27.0	August 16:00	18.0	1314.2

Space Loads and Airflows

Zone Name / Space Name	Cooling Sensible (MBH)	Time of Peak Sensible Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (sqft)	Space CFM/sqft
Zone 4						
FUTURE BREAK	14.3	August 16:00	917	7.8	619.0	1.48
FUTURE CONF	7.5	July 15:00	478	4.6	304.3	1.57
FUTURE OFFICES	5.8	August 14:00	369	5.6	390.9	0.94

Air System Heat Balance Summary for Godfrey_Zone 4
(In Alternative: Godfrey_heat pumps)

Project: Godfrey — 12/18/2024
Prepared by: EPIC ENGINEERING — 9:23 AM

Table 1. System Loads

	DESIGN COOLING - AUGUST 15:00			DESIGN HEATING		
	OA DB / WB 94.8 F / 61.6 F			OA DB / WB -5.8 F / -7.1 F		
COMPONENT LOADS	Details	Sensible [BTU/hr]	Latent [BTU/hr]	Details	Sensible [BTU/hr]	Latent [BTU/hr]
Zone Conditioning	-	26648	4028	-	18436	0
Plenum Load	-	0	0	-	0	0
Return Fan Load	1765 CFM	0	-	1765 CFM	0	-
Ventilation Load	211 CFM	1880	-2037	211 CFM	7184	0
Supply Fan Load	1765 CFM	2616	-	1765 CFM	-2616	-
Zone Fan Coil Fans Load	-	0	-	-	0	-
>> Total System Loads	-	31144	1991	-	23004	0
Central Cooling Coil	-	31149	2177	-	0	0
Central Heating Coil	-	0	-	-	23025	-
>> Total Conditioning	-	31149	2177	-	23025	0
Key:	Positive values are cooling loads Negative values are heating loads			Positive values are heating loads Negative values are cooling loads		

Table 2. Zone Heat Balance Loads

	DESIGN COOLING - AUGUST 15:00			DESIGN HEATING		
	OA DB / WB 94.8 F / 61.6 F			OA DB / WB -5.8 F / -7.1 F		
Zone Heat Balance Component	Details	Sensible [BTU/hr]	Latent [BTU/hr]	Details	Sensible [BTU/hr]	Latent [BTU/hr]
Exterior Wall Convection	1786 sqft	4171	-	1786 sqft	4913	-
Roof Convection	1315 sqft	4385	-	1315 sqft	4213	-
Window Convection	256 sqft	2115	-	256 sqft	3112	-
Skylight Convection	0 sqft	0	-	0 sqft	0	-
Door Convection	0 sqft	0	-	0 sqft	0	-
Floor Convection	1314 sqft	2656	-	1314 sqft	1615	-
Interior Wall Convection	1746 sqft	3180	-	1746 sqft	1802	-
Ceiling Convection	0 sqft	0	-	0 sqft	0	-
Overhead Lighting Convection	844 W	1800	-	0 W	0	-
Task Lighting Convection	0 W	0	-	0 W	0	-
Electric Equipment Convection	2455 W	6282	-	0 W	0	-
People Convection	28	1900	4629	0	0	0
Infiltration	27 CFM	490	-717	33 CFM	2312	0
Miscellaneous Equipment	-	0	0	-	0	0
Air Internal Energy Change	-	0		-	0	0
Safety Factor	0% / 0%	0	0	0%	0	0
>> Total Zone Loads	-	26977	3912	-	17968	0
Key:	Positive values are cooling loads Negative values are heating loads			Positive values are heating loads Negative values are cooling loads		

Note 1: Surface convection line items show the combined effects of conductive heat gain to the surface and radiative heat gains absorbed at the surface which are then convected to room air.

Note 2: Lighting, equipment, and people line items include only the direct convective heat gain from the heat source to the room air. The radiative portion of the heat gain is first absorbed by surfaces in the room and then later convected from the surface to the air. Therefore the effect of the radiative portion of the heat gain is found in the surface convection line items.

Note 3: Solar heat gain is absorbed by surfaces in the room, re-radiated to other surfaces, and finally convected from the surfaces to room air. Therefore, the effect of solar heat gain is found in the surface convection line items.

CONSTRUCTION NOTES

DATE
JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT # 24SM5632

REGISTERED PROFESSIONAL ENGINEER — No. 169276 — DON J. OLSEN — STATE OF UTAH — 12/24

SCALES
0 1"
PLOT SCALE MEASURES 1" IN A FULL SIZE SHEET. ADJUST FOR REDUCED.

PROJECT NAME:
GODFREY DENTAL OFFICE

PROJECT LOCATION:
340 W 3200 S
NIBLEY, UT 84321

SHEET TITLE:
HEAT LOSS CALCULATIONS

PLAN SET: PERMIT
SHEET M0.4

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_Jsutless.rvt

Air System Sizing Summary for Godfrey_Zone 5

(In Alternative: Godfrey_heat pumps)

Project: Godfrey 12/18/2024
Prepared by: EPIC ENGINEERING 9:23 AM

Air System Information

Air System Name	Godfrey_Zone 5	Number of zones	1
Equipment Class	UNDEF	Floor Area	520.3 sqft
Air System Type	SZCAV	Location	Logan-Cache Ap, UT, USA

Sizing Calculation Information

Calculation Months	Jan to Dec	Zone CFM Sizing	Sum of space airflow rates
Sizing Data	Calculated	Space CFM Sizing	Individual peak space loads

Central Cooling Coil Sizing Data

Total coil load	1.3	Tons	Peak coil load occurs at	August 15:00	
Total coil load	15.3	MBH	OA DB / WB	94.8 / 61.6	F
Sensible coil load	15.3	MBH	Entering DB / WB	83.6 / 58.7	F
Coil CFM at peak load	686	CFM	Leaving DB / WB	59.7 / 49.9	F
Sum of peak zone CFM	686	CFM	Resulting RH	33	%
Sensible heat ratio	1.000		Design supply temp.	58.0	F
CFM/Ton	539.7		Zone T-stat Check	1 of 1	OK
sqft/Ton	409.4		Max zone temperature deviation	0.0	F
BTU/(hr sqft)	29.3				
Water flow @ 10.0 F rise	3.05	gpm			

Central Heating Coil Sizing Data

Max coil load	29.3	MBH	Load occurs at	Design Heating	
Coil CFM at Design Heating	686	CFM	BTU/(hr sqft)	56.3	
Max coil CFM	686	CFM	Ent. DB / Lvg DB	36.8 / 83.2	F
Water flow @ 20.0 F drop	2.93	gpm			

Supply Fan Sizing Data

Design CFM	686	CFM	Fan motor BHP	0.38	BHP
Design CFM/sqft	1.32	CFM/sqft	Fan motor kW	0.30	kW
			Fan total static	2.00	in wg

Outdoor Ventilation Air Data

Design airflow CFM	300	CFM	CFM/person	58.43	CFM/person
CFM/sqft	0.58	CFM/sqft			

Zone Sizing Summary for Godfrey_Zone 5

(In Alternative: Godfrey_heat pumps)

Project: Godfrey 12/18/2024
Prepared by: EPIC ENGINEERING 9:23 AM

Air System Information

Air System Name	Godfrey_Zone 5	Number of zones	1
Equipment Class	UNDEF	Floor Area	520.3 sqft
Air System Type	SZCAV	Location	Logan-Cache Ap, UT, USA

Sizing Calculation Information

Calculation Months	Jan to Dec	Zone CFM Sizing	Sum of space airflow rates
Sizing Data	Calculated	Space CFM Sizing	Individual peak space loads

Zone Terminal Sizing Data

Zone Name	Design Supply Airflow (CFM)	Minimum Supply Airflow (CFM)	Zone CFM/sqft	Reheat Coil Capacity (MBH)	Reheat Coil Water gpm @ 20.0 F	Zone Htg Unit Coil Capacity (MBH)	Zone Htg Unit Water gpm @ 20.0 F	Mixing Box Fan Airflow (CFM)
Zone 5	686	686	1.32	0.0	0.00	0.0	0.00	0

Zone Peak Sensible Loads

Zone Name	Zone Cooling Sensible (MBH)	Time of Peak Sensible Cooling Load	Zone Heating Load (MBH)	Zone Floor Area (sqft)
Zone 5	9.4	August 15:00	9.0	520.3

Space Loads and Airflows

Zone Name / Space Name	Cooling Sensible (MBH)	Time of Peak Sensible Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (sqft)	Space CFM/sqft
Zone 5						
CONSULT 41	4.4	September 14:00	284	3.9	138.1	2.06
DR OFFICE 40	2.1	July 10:00	132	1.9	118.4	1.12
DR RESTROOM	0.2	July 13:00	16	0.4	29.0	0.57
RESTROOM 31	0.5	August 15:00	41	0.9	73.1	0.57
RESTROOM 32	0.6	July 13:00	69	1.6	72.6	0.95
STERILIZATION 39	2.2	September 15:00	143	0.4	89.0	1.61

Air System Heat Balance Summary for Godfrey_Zone 5

(In Alternative: Godfrey_heat pumps)

Project: Godfrey 12/18/2024
Prepared by: EPIC ENGINEERING 9:23 AM

Table 1. System Loads

	DESIGN COOLING - AUGUST 15:00 OA DB / WB 94.8 F / 61.6 F			DESIGN HEATING OA DB / WB -5.8 F / -7.1 F		
COMPONENT LOADS	**Details**	**Sensible [BTU/hr]**	**Latent [BTU/hr]**	**Details**	**Sensible [BTU/hr]**	**Latent [BTU/hr]**
Zone Conditioning	-	8757	987	-	9371	0
Plenum Load		0	0		0	0
Return Fan Load	386 CFM	0	-	386 CFM	0	-
Ventilation Load	300 CFM	5407	-991	300 CFM	20855	0
Supply Fan Load	686 CFM	1017	-	686 CFM	-1017	-
Zone Fan Coil Fans Load	-	0	-	-	0	-
>> Total System Loads	-	**15181**	**-4**	-	**29209**	**0**
Central Cooling Coil	-	15251	0	-	0	0
Central Heating Coil	-	0	-	-	29270	-
>> Total Conditioning	-	**15251**	**0**	-	**29270**	**0**
Key:	**Positive values are cooling loads Negative values are heating loads**			**Positive values are heating loads Negative values are cooling loads**		

Table 2. Zone Heat Balance Loads

	DESIGN COOLING - AUGUST 15:00 OA DB / WB 94.8 F / 61.6 F			DESIGN HEATING OA DB / WB -5.8 F / -7.1 F		
Zone Heat Balance Component	**Details**	**Sensible [BTU/hr]**	**Latent [BTU/hr]**	**Details**	**Sensible [BTU/hr]**	**Latent [BTU/hr]**
Exterior Wall Convection	687 sqft	1284	-	687 sqft	1826	-
Roof Convection	0 sqft	0	-	0 sqft	0	-
Window Convection	96 sqft	780	-	96 sqft	1311	-
Skylight Convection	0 sqft	0	-	0 sqft	0	-
Door Convection	0 sqft	0	-	0 sqft	0	-
Floor Convection	520 sqft	938	-	520 sqft	3027	-
Interior Wall Convection	2128 sqft	2270	-	2128 sqft	1307	-
Ceiling Convection	520 sqft	1171	-	520 sqft	807	-
Overhead Lighting Convection	516 W	1099	-	0 W	0	-
Task Lighting Convection	0 W	0	-	0 W	0	-
Electric Equipment Convection	499 W	1278	-	0 W	0	-
People Convection	5	377	1053	0	0	0
Infiltration	9 CFM	161	-135	11 CFM	757	0
Miscellaneous Equipment	-	0	0	-	0	0
Air Internal Energy Change	-	0		-	0	0
Safety Factor	0% / 0%	0	0	0%	0	0
>> Total Zone Loads	-	**9357**	**917**	-	**9036**	**0**
Key:	**Positive values are cooling loads Negative values are heating loads**			**Positive values are heating loads Negative values are cooling loads**		

Note 1: Surface convection line items show the combined effects of conductive heat gain to the surface and radiative heat gains absorbed at the surface which are then convected to room air.

Note 2: Lighting, equipment, and people line items include only the direct convective heat gain from the heat source to the room air. The radiative portion of the heat gain is first absorbed by surfaces in the room and then later convected from the surface to the air. Therefore the effect of the radiative portion of the heat gain is found in the surface convection line items.

Note 3: Solar heat gain is absorbed by surfaces in the room, re-radiated to other surfaces, and finally convected from the surfaces to room air. Therefore, the effect of solar heat gain is found in the surface convection line items.

CONSTRUCTION NOTES

DATE

JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT #
24SM5632

REGISTERED PROFESSIONAL ENGINEER No. 169276 DON I. OLSEN STATE OF UTAH

SCALES

0 1"
FOR SCALE MEASURES 1" ON A FULL SIZE SHEET. ADJUST AS REQUIRED

PROJECT NAME:
GODFREY DENTAL OFFICE

PROJECT LOCATION:
340 W 3200 S
NIBLEY, UT 84321

SHEET TITLE:
HEAT LOSS CALCULATIONS

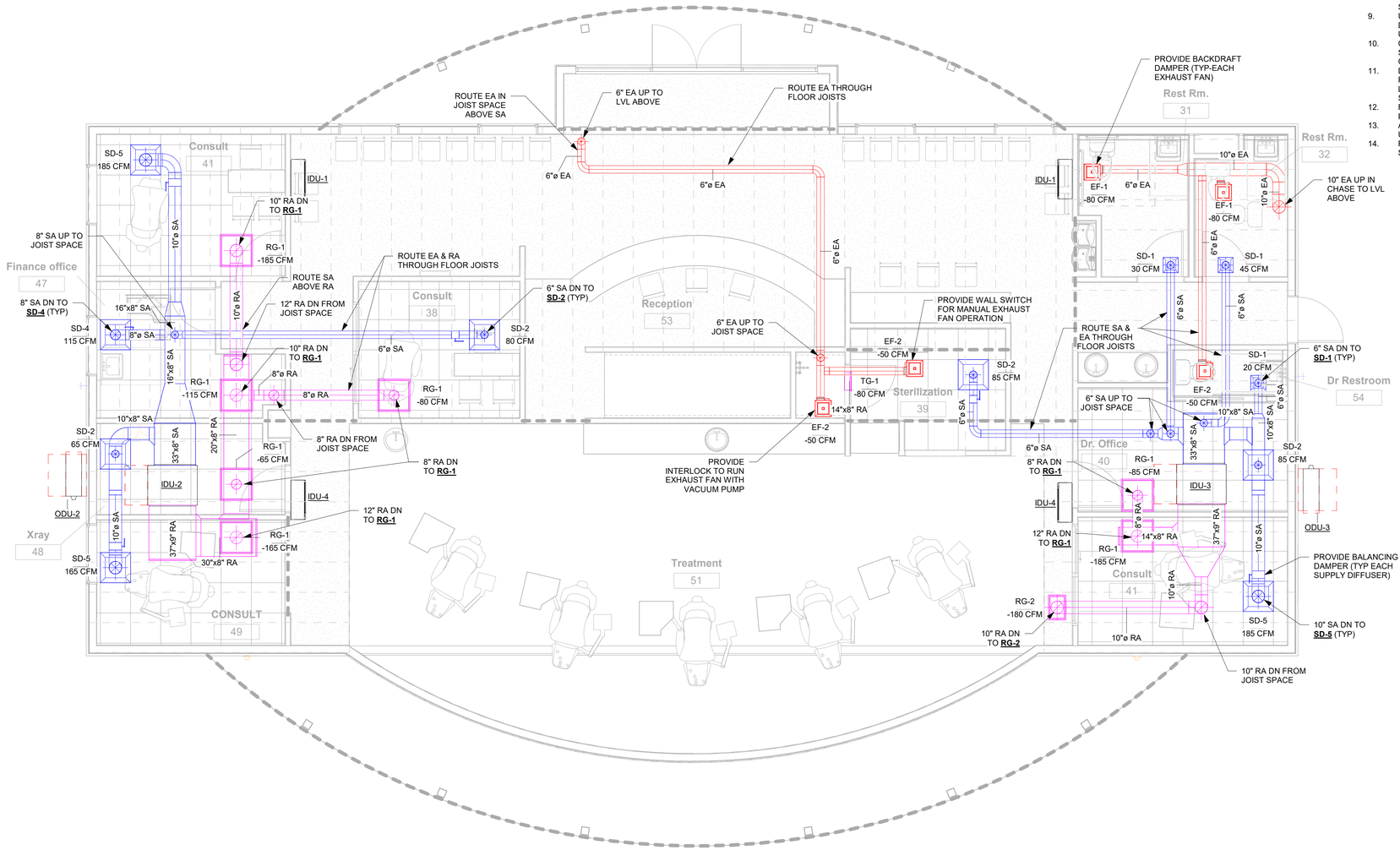
PLAN SET: PERMIT

SHEET M0.5

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_duotess.rvt

MECHANICAL GENERAL NOTES

1. ALL DRAWINGS SHALL BE CONSIDERED PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL ASPECTS OF THE CONTRACT DOCUMENTS PRIOR TO SUBMITTING PRICING. ANY AND ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO AN INSTALLATION SUCH THAT CLARIFICATIONS CAN BE ISSUED.
2. ANY WORK PERFORMED OR MATERIAL USED WHICH IS SHOWN TO BE IN CONFLICT WITH THE CONTRACT DRAWINGS, SPECIFICATIONS OR ANY APPLICABLE CODE OR GOVERNING REGULATION SHALL BE REMOVED AND REPLACED OR CORRECTED AT THE CONTRACTOR'S EXPENSE.
3. ALL SYMBOLS AND ABBREVIATIONS USED ON THE CONTRACT DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF CLARIFICATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH ANY WORK.
4. DO NO SCALE THE DRAWINGS: ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE PRIOR TO FABRICATION OF MATERIALS OR ERECTION OF ASSEMBLIES. IF DISCREPANCIES ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION.
5. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR AND EQUIPMENT, TRANSPORTATION AND SERVICES REQUIRED FOR COMPLETION OF THE WORK. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE DONE IN STRICT COMPLIANCE WITH ALL LOCAL CODES AND GOVERNING REGULATIONS.
6. ALL PERMITS AND FEES WHICH ARE REQUIRED FOR THIS WORK SHALL BE SECURED AND PAID FOR BY THE MECHANICAL CONTRACTOR.
7. ALL PLUMBING AND MECHANICAL INSTALLATIONS SHALL ADHERE TO THE 2015 IECC.
8. PROVIDE OPERATION AND MAINTENANCE MANUALS TO OWNER OR ALL NEWLY INSTALLED EQUIPMENT PER 2015 IECC. O&M MANUALS SHALL BE BOUND IN THREE RING BINDER UTILIZING LABELED TABS TO SEPARATE EQUIPMENT SECTIONS.
9. UNLESS NOTED OTHERWISE, ALL EXISTING MECHANICAL EQUIPMENT, DUCTWORK, AND MECHANICAL ACCESSORIES SHALL REMAIN. NO CHANGES UNLESS NOTED.
10. CONTRACTOR SHALL BE RESPONSIBLE TO CLEAN THE SURFACE OF ALL SUPPLY, RETURN, EXHAUST, AND TRANSFER DIFFUSERS/GRILLES AT COMPLETION OF PROJECT.
11. DUCTWORK SHALL BE FABRICATED TO NFPA 90A STANDARDS. TYPICAL LOW PRESSURE DUCTWORK SHALL BE ASTM A653M GALVANIZED STEEL SHEET, LOCK FORMING QUALITY, HAVING ZINC COATING OF 1.25 OUNCES/SF FOR EACH SIDE PER ASTM A90.
12. FABRICATE AND SUPPORT DUCTWORK IN ACCORDANCE WITH SMACNA LOW PRESSURE DUCT CONSTRUCTION STANDARDS AND ASHRAE HANDBOOKS.
13. ALL BRANCH DUCTWORK SHALL MATCH CONNECTION SIZE OF DIFFUSERS UNLESS NOTED OTHERWISE.
14. ROUTE EXPOSED SPIRAL DUCTWORK AS HIGH AS POSSIBLE TO BOTTOM OF STRUCTURE.



1 FIRST LEVEL MECHANICAL PLAN
1/4" = 1'-0"

CONSTRUCTION NOTES

DATE
JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT # 24SM5632

REGISTERED PROFESSIONAL ENGINEER No. 169278 DON I. OLSEN STATE OF UTAH 1/7/25

SCALES
As indicated
0 1"
BAR SCALE MEASURES 1" ON A FULL SIZE SHEET. ADJUST IF NOT AT THIS SCALE.

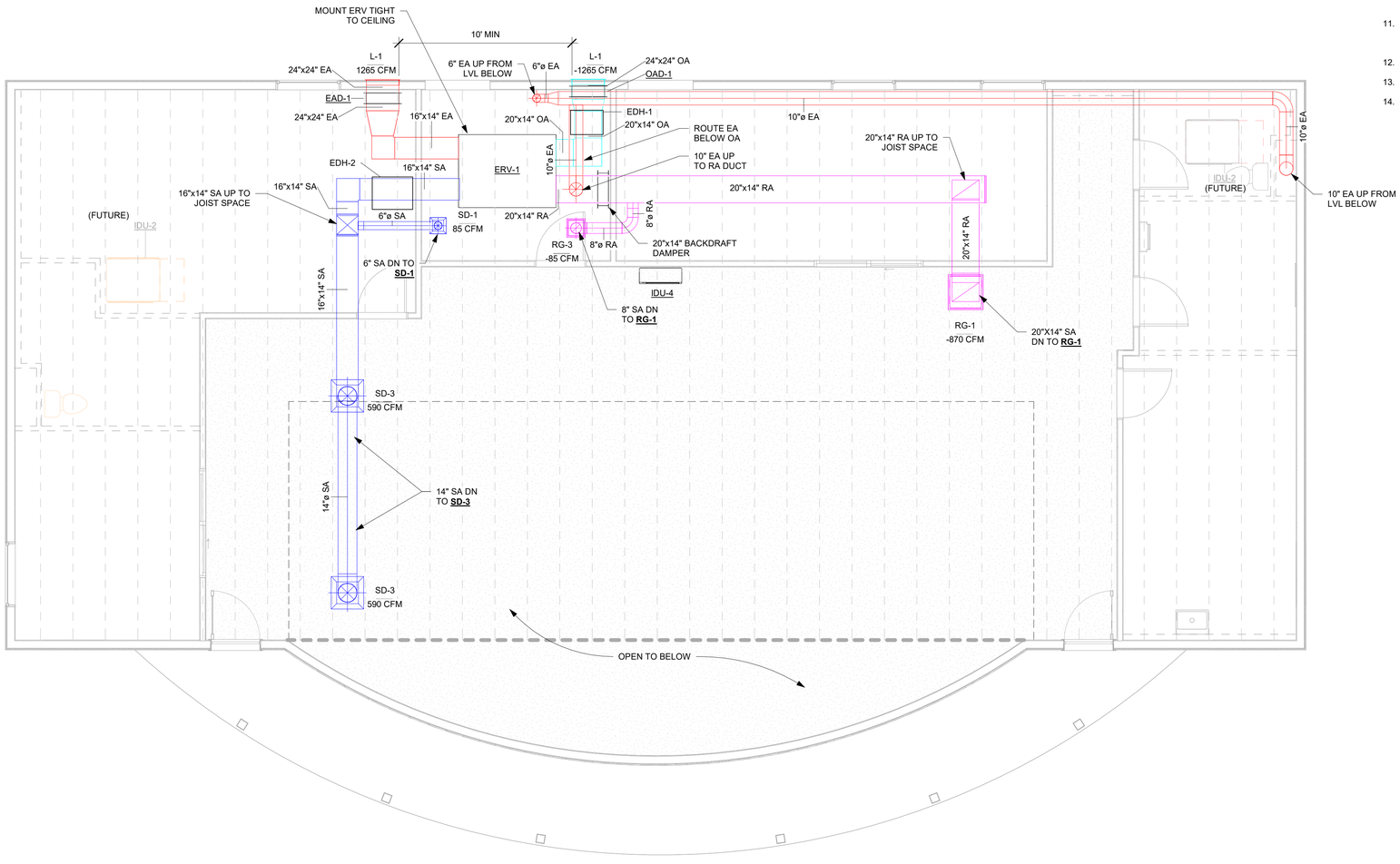
PROJECT NAME:
GODFREY DENTAL OFFICE

PROJECT LOCATION:
340 W 3200 S
NIBLEY, UT 84321

SHEET TITLE:
FIRST LEVEL MECHANICAL PLAN

PLAN SET: PERMIT
SHEET M1.1

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_Jsutless.rvt



1 SECOND LEVEL MECHANICAL PLAN
1/4" = 1'-0"

MECHANICAL GENERAL NOTES

1. ALL DRAWINGS SHALL BE CONSIDERED PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL ASPECTS OF THE CONTRACT DOCUMENTS PRIOR TO SUBMITTING PRICING. ANY AND ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO AN INSTALLATION SUCH THAT CLARIFICATIONS CAN BE ISSUED.
2. ANY WORK PERFORMED OR MATERIAL USED WHICH IS SHOWN TO BE IN CONFLICT WITH THE CONTRACT DRAWINGS, SPECIFICATIONS OR ANY APPLICABLE CODE OR GOVERNING REGULATION SHALL BE REMOVED AND REPLACED OR CORRECTED AT THE CONTRACTOR'S EXPENSE.
3. ALL SYMBOLS AND ABBREVIATIONS USED ON THE CONTRACT DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF CLARIFICATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH ANY WORK.
4. DO NO SCALE THE DRAWINGS: ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE PRIOR TO FABRICATION OF MATERIALS OR ERECTION OF ASSEMBLIES. IF DISCREPANCIES ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION.
5. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR AND EQUIPMENT, TRANSPORTATION AND SERVICES REQUIRED FOR COMPLETION OF THE WORK. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE DONE IN STRICT COMPLIANCE WITH ALL LOCAL CODES AND GOVERNING REGULATIONS.
6. ALL PERMITS AND FEES WHICH ARE REQUIRED FOR THIS WORK SHALL BE SECURED AND PAID FOR BY THE MECHANICAL CONTRACTOR.
7. ALL PLUMBING AND MECHANICAL INSTALLATIONS SHALL ADHERE TO THE 2015 IECC.
8. PROVIDE OPERATION AND MAINTENANCE MANUALS TO OWNER OR ALL NEWLY INSTALLED EQUIPMENT PER 2015 IECC. O&M MANUALS SHALL BE BOUND IN THREE RING BINDER UTILIZING LABELED TABS TO SEPARATE EQUIPMENT SECTIONS.
9. UNLESS NOTED OTHERWISE, ALL EXISTING MECHANICAL EQUIPMENT, DUCTWORK, AND MECHANICAL ACCESSORIES SHALL REMAIN. NO CHANGES UNLESS NOTED.
10. CONTRACTOR SHALL BE RESPONSIBLE TO CLEAN THE SURFACE OF ALL SUPPLY, RETURN, EXHAUST, AND TRANSFER DIFFUSERS/GRILLES AT COMPLETION OF PROJECT.
11. DUCTWORK SHALL BE FABRICATED TO NFPA 90A STANDARDS. TYPICAL LOW PRESSURE DUCTWORK SHALL BE ASTM A653M GALVANIZED STEEL SHEET, LOCK FORMING QUALITY, HAVING ZINC COATING OF 1.25 OUNCES/SF FOR EACH SIDE PER ASTM A90.
12. FABRICATE AND SUPPORT DUCTWORK IN ACCORDANCE WITH SMACNA LOW PRESSURE DUCT CONSTRUCTION STANDARDS AND ASHRAE HANDBOOKS.
13. ALL BRANCH DUCTWORK SHALL MATCH CONNECTION SIZE OF DIFFUSERS UNLESS NOTED OTHERWISE.
14. ROUTE EXPOSED SPIRAL DUCTWORK AS HIGH AS POSSIBLE TO BOTTOM OF STRUCTURE.

CONSTRUCTION NOTES

DATE

JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT #
24SM5632

REGISTERED PROFESSIONAL ENGINEER
No. 169278
DON I. OLSEN
STATE OF UTAH
1/7/25

SCALES

As indicated

BAR SCALE MEASURES 1" ON A FULL SIZE SHEET. ADJUST ACCORDINGLY

PROJECT NAME:
GODFREY DENTAL OFFICE

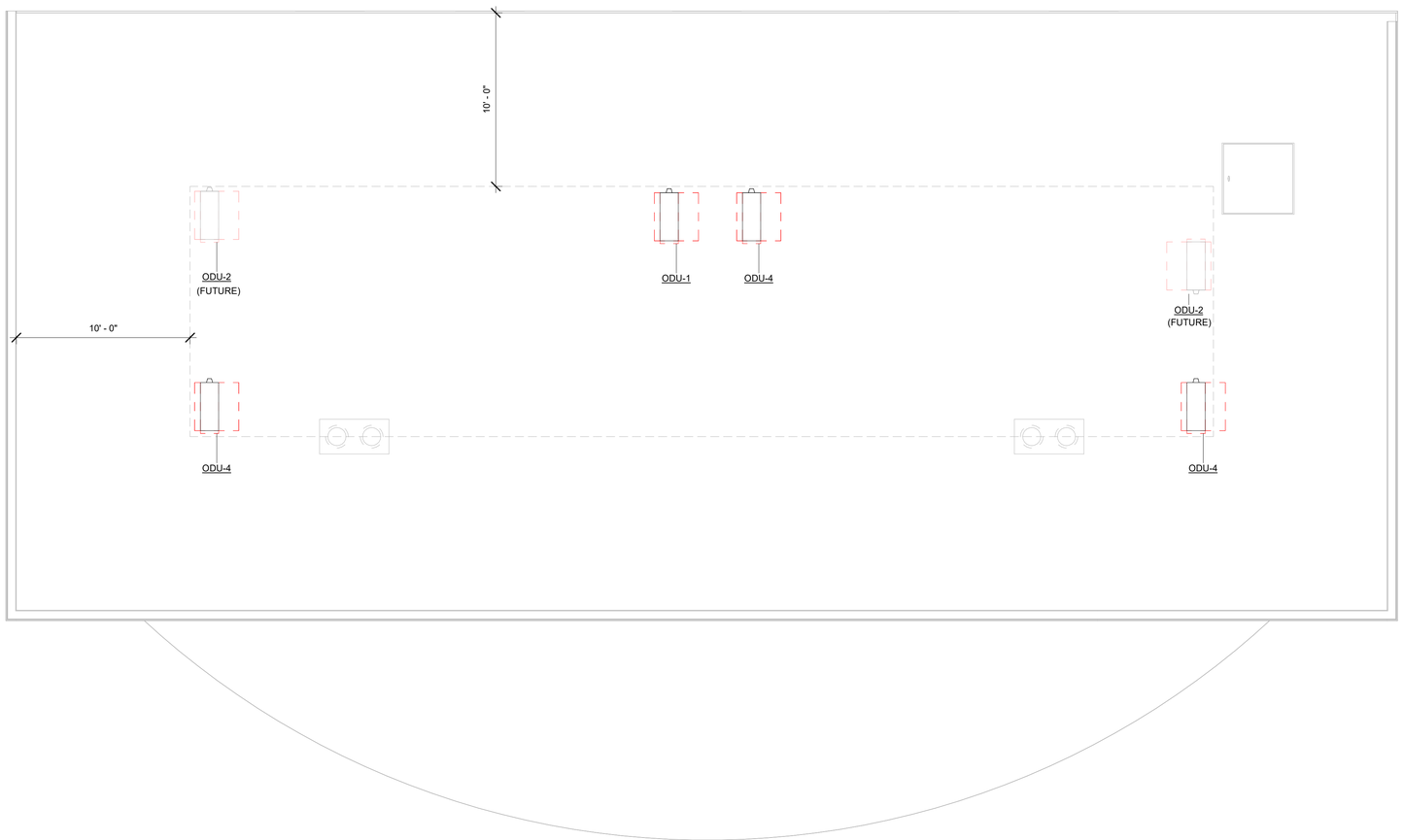
PROJECT LOCATION:
340 W 3200 S
NIBLEY, UT 84321

SHEET TITLE:
SECOND LEVEL MECHANICAL PLAN

PLAN SET: PERMIT

SHEET M1.2

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_2updated.rvt



1 ROOF MECHANICAL PLAN
1/4" = 1'-0"

MECHANICAL GENERAL NOTES

1. ALL DRAWINGS SHALL BE CONSIDERED PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL ASPECTS OF THE CONTRACT DOCUMENTS PRIOR TO SUBMITTING PRICING. ANY AND ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO AN INSTALLATION SUCH THAT CLARIFICATIONS CAN BE ISSUED.
2. ANY WORK PERFORMED OR MATERIAL USED WHICH IS SHOWN TO BE IN CONFLICT WITH THE CONTRACT DRAWINGS, SPECIFICATIONS OR ANY APPLICABLE CODE OR GOVERNING REGULATION SHALL BE REMOVED AND REPLACED OR CORRECTED AT THE CONTRACTOR'S EXPENSE.
3. ALL SYMBOLS AND ABBREVIATIONS USED ON THE CONTRACT DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF CLARIFICATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH ANY WORK.
4. DO NO SCALE THE DRAWINGS: ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE PRIOR TO FABRICATION OF MATERIALS OR ERECTION OF ASSEMBLIES. IF DISCREPANCIES ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION.
5. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR AND EQUIPMENT, TRANSPORTATION AND SERVICES REQUIRED FOR COMPLETION OF THE WORK. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE DONE IN STRICT COMPLIANCE WITH ALL LOCAL CODES AND GOVERNING REGULATIONS.
6. ALL PERMITS AND FEES WHICH ARE REQUIRED FOR THIS WORK SHALL BE SECURED AND PAID FOR BY THE MECHANICAL CONTRACTOR.
7. ALL PLUMBING AND MECHANICAL INSTALLATIONS SHALL ADHERE TO THE 2015 IECC.
8. PROVIDE OPERATION AND MAINTENANCE MANUALS TO OWNER OR ALL NEWLY INSTALLED EQUIPMENT PER 2015 IECC. O&M MANUALS SHALL BE BOUND IN THREE RING BINDER UTILIZING LABELED TABS TO SEPARATE EQUIPMENT SECTIONS.
9. UNLESS NOTED OTHERWISE, ALL EXISTING MECHANICAL EQUIPMENT, DUCTWORK, AND MECHANICAL ACCESSORIES SHALL REMAIN. NO CHANGES UNLESS NOTED.
10. CONTRACTOR SHALL BE RESPONSIBLE TO CLEAN THE SURFACE OF ALL SUPPLY, RETURN, EXHAUST, AND TRANSFER DIFFUSERS/GRILLES AT COMPLETION OF PROJECT.
11. DUCTWORK SHALL BE FABRICATED TO NFPA 90A STANDARDS. TYPICAL LOW PRESSURE DUCTWORK SHALL BE ASTM A653M GALVANIZED STEEL SHEET, LOCK FORMING QUALITY, HAVING ZINC COATING OF 1.25 OUNCES/SF FOR EACH SIDE PER ASTM A90.
12. FABRICATE AND SUPPORT DUCTWORK IN ACCORDANCE WITH SMACNA LOW PRESSURE DUCT CONSTRUCTION STANDARDS AND ASHRAE HANDBOOKS.
13. ALL BRANCH DUCTWORK SHALL MATCH CONNECTION SIZE OF DIFFUSERS UNLESS NOTED OTHERWISE.
14. ROUTE EXPOSED SPIRAL DUCTWORK AS HIGH AS POSSIBLE TO BOTTOM OF STRUCTURE.

CONSTRUCTION NOTES

DATE

JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT #
24SM5632

REGISTERED PROFESSIONAL ENGINEER
No. 169278
DON I. OLSEN
STATE OF UTAH

SCALES

As indicated

PROJECT NAME:
GODFREY DENTAL OFFICE

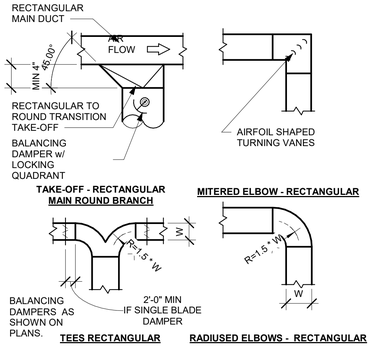
PROJECT LOCATION:
340 W 3200 S
NIBLEY, UT 84321

SHEET TITLE:
ROOF MECHANICAL PLAN

PLAN SET: PERMIT

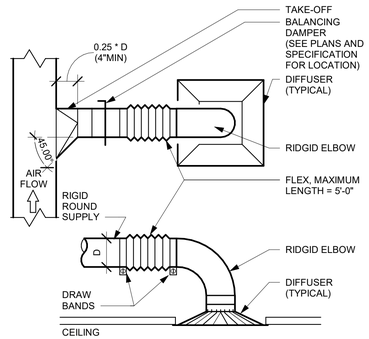
SHEET M1.3

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_Xcelsius.rvt



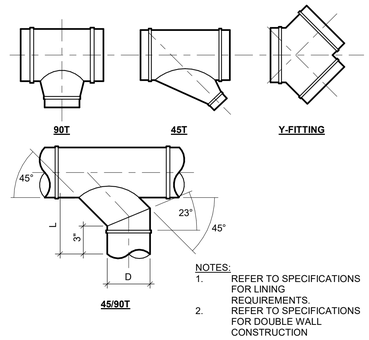
1 LOW PRESSURE RETANGULAR DUCT FITTINGS

N.T.S.



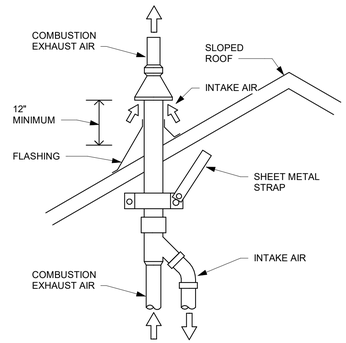
2 TYPICAL DUCT TAKE-OFF DETAIL

N.T.S.



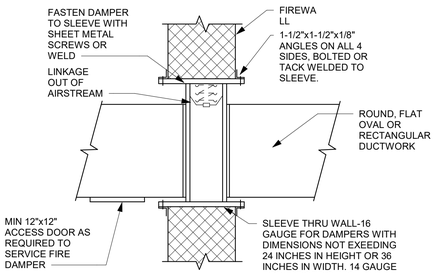
3 TYPICAL SPIRAL DUCT FITTINGS

N.T.S.



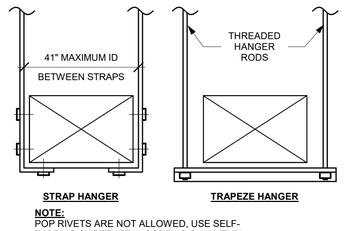
4 CONCENTRIC FLUE DETAIL (SLOPED ROOF)

N.T.S.



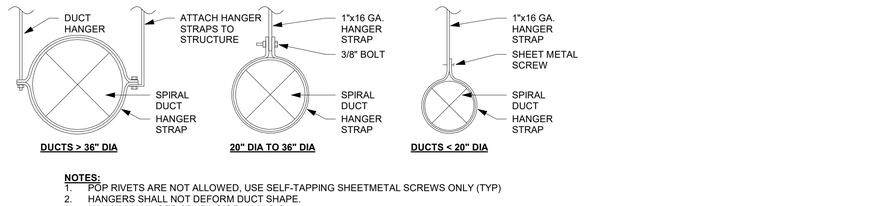
7 FIRE DAMPER IN WALL DETAIL

N.T.S.



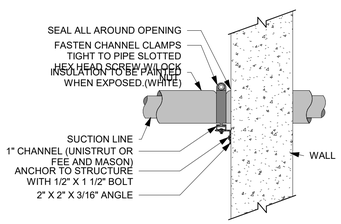
8 DUCTWORK SUPPORT DETAIL

N.T.S.



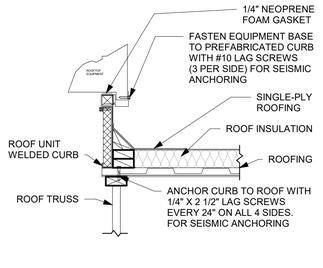
9 ROUND DUCTWORK SUPPORT DETAIL

N.T.S.



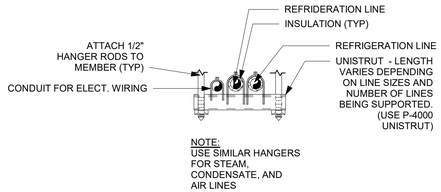
14 REFRIGERANT PIPE THROUGH WALL

N.T.S.



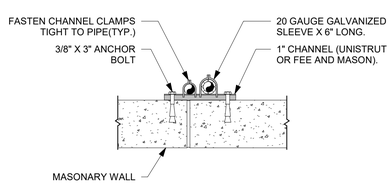
15 SEISMIC EQUIPMENT CURB

N.T.S.



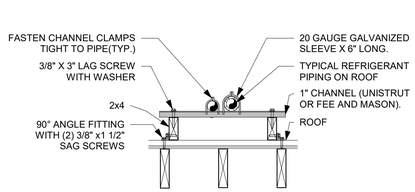
16 TRAPEZE PIPE HANGER

N.T.S.



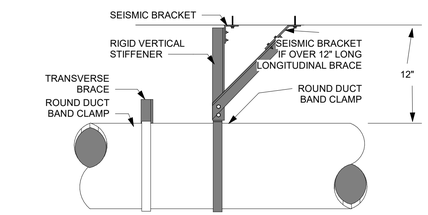
11 REFRIGERANT PIPE SUPPORT ON WALL

N.T.S.



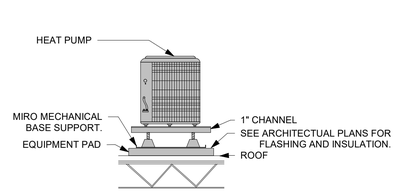
12 REFRIGERANT PIPE SUPPORT ON ROOF

N.T.S.



13 SEISMIC BRACING-ROUND DUCT

N.T.S.



17 HEAT PUMP MOUNTING ON ROOF

N.T.S.

CONSTRUCTION NOTES

DATE

JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT # 24SM5632

REGISTERED PROFESSIONAL ENGINEER No. 169276 DON I. OLSEN STATE OF UTAH

SCALES

As indicated

IF NOT 1" THEN ADJUST SCALES ACCORDINGLY. A FULL SIZE SHEET, ADJUST. FOR A HALF SIZE SHEET

PROJECT NAME:

GODFREY DENTAL OFFICE

PROJECT LOCATION:

340 W 3200 S NIBLEY, UT 84321

SHEET TITLE:

MECHANICAL DETAILS

PLAN SET: PERMIT

SHEET M5.1

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_duct.rvt

HEAT PUMP INDOOR UNIT SCHEDULE

Mark	MANUFACTURER	MODEL	NOMINAL TONAGE	COOLING	HEATING	VOLTAGE	NOTES
IDU-1	Daikin	FTXV12AVJU9	1.0	11700.0 Btu/h	12500.0 Btu/h	240/1/60	
IDU-2	Daikin	FDMQ18WVJU9	1.5	19600.0 Btu/h	25000.0 Btu/h	240/1/60	
IDU-3	Daikin	FXMA24AAVJU	2	24000.0 Btu/h	27000.0 Btu/h	240/1/60	
IDU-4	Daikin	FTXF18AXVJU	1.5	18100.0 Btu/h	21600.0 Btu/h	240/1/60	

HEAT PUMP CONDENSING UNIT SCHEDULE

1. PROVIDE MANUFACTURER EQUIPMENT PAD.
2. PROVIDE MANUFACTURER'S RECOMMENDED CLEARANCES ON ALL SIDES.

TAG	MANUFACTURER	MODEL	NOMINAL COOLING	SERVES	SEER	MCA	MOP	VOLTAGE	NOTES
ODU-1	Daikin	3MXM24AVJU9	23000.0 Btu/h	IDU-1	21	19.9 A	25 A	230/1/60	
ODU-2	Daikin	RXL18WVJU9	18000.0 Btu/h	IDU-2	22.70	18.6 A	25 A	230/1/60	
ODU-3	Daikin	RXF24AXVJU	22400.0 Btu/h	IDU-3	21	16.3 A	20 A	230/1/60	
ODU-4	Daikin	RXF18AXVJU	18000.0 Btu/h	IDU-4	22.70	16.3 A	20 A	230/1/60	

ENERGY RECOVERY VENTILATOR SCHEDULE

TAG	MANUFACTURER	MODEL	AIR FLOWRATE	MOP	MCA	Voltage
ERV-1	OXYGEN 8	B20IN - (525-1300 CFM)	1265 CFM	15 A	8.8 A	240V/1PH/60HZ

1. PROVIDE VARIABLE AIR VOLUME WITH PRESSURE CONTROL.
2. INSTALL DUCT PRESSURE AND TEMPERATURE SENSORS IN SUPPLY AIR DUCTING PER MANUFACTURER RECOMMENDATION.
3. PROVIDE ELECTRIC PRE-HEAT AND SUPPLY HEAT DUCT HEATERS AS SCHEDULED.
4. PROVIDE OUTSIDE AIR AND EXHAUST AIR ACTUATED DAMPERS PER MANUFACTURER RECOMMENDATION.

INLINE DUCT HEATER SCHEDULE

TAG	MANUFACTURER	MODEL	DESCRIPTION	SIZE	CFM	MOP	MCA	Voltage
IDH-1	OXYGEN 8	NOVA B20 1PH L EC E1	PRE-HEAT DUCT HEATER	14"x18"	1265	20 A	15.6 A	240/1/60
IDH-2	OXYGEN 8	NOVA B20 1PH L EC E3	PRE-HEAT DUCT HEATER	14"x18"	1265	100 A	93.8 A	240/1/60

CONTROL DAMPER SCHEDULE

TAG	MANUFACTURER	MODEL	SIZE	NOTES
EAD-1	ALUMAVENT	3167	24"x24"	
OAD-1	ALUMAVENT	3167	24"x24"	

1. PROVIDE ACTUATOR PER ERV MANUFACTURER RECOMMENDATION.

LOUVER SCHEDULE

TAG	MANUFACTURER	MODEL	SIZE	NOTES
L-1	RUSKIN	ELF6375DX	24x24	
L-2	RUSKIN	ELF6375DX	24x24	

EXHAUST FAN SCHEDULE

1. CONTROL FAN ON BATHROOM LIGHT SWITCH.

TAG	MANUFACTURER	MODEL	DUCT SIZE	MOUNTING	AIR FLOW	RPM	E.S.P.	WATTS	VOLTAGE	NOTES
EF-1	Panasonic	FV-11-15VK1	6"	CEILING	80 CFM	814	0.50 in-wg	6 W	120/1/60	
EF-2	Panasonic	FV-11-15VK1	6"	CEILING	50 CFM	747	0.50 in-wg	4 W	120/1/60	

GRILLE AND DIFFUSER SCHEDULE

TAG	MANUFACTURER	MODEL	TYPE	FACE SIZE	NECK SIZE	MOUNTING	COLOR	MATERIAL	NOTES
					6"ø				
L-1	RUSKIN	ELF6375DX		24" x 24"	24"x24"	CEILING	WHITE	Steel	
RG-1	TITUS	350RL	RETURN GRILLE	25 3/4" x 25 3/4"	24"x24"	CEILING	WHITE	Steel	
RG-2	TITUS	350RL	RETURN GRILLE	13 3/4" x 19 3/4"	18"x12"	CEILING	WHITE	Steel	
RG-3	TITUS	350RL	RETURN GRILLE	13 3/4" x 13 3/4"	12"x12"	CEILING	WHITE	Steel	
SD-1	TITUS	TMS	SUPPLY DIFFUSER	12" x 12"	6"ø	CEILING	WHITE	Steel	
SD-2	TITUS	TMS	SUPPLY DIFFUSER	24" x 24"	6"ø	CEILING	WHITE	Steel	
SD-3	TITUS	TMS	SUPPLY DIFFUSER	24" x 24"	14"ø	CEILING	WHITE	Steel	
SD-4	TITUS	TMS	SUPPLY DIFFUSER	24" x 24"	8"ø	CEILING	WHITE	Steel	
SD-5	TITUS	TMS	SUPPLY DIFFUSER	24" x 24"	10"ø	CEILING	WHITE	Steel	
TG-1	TITUS	350RL	TRANSFER GRILLE	15 3/4" x 9 3/4"	8"x14"	WALL	WHITE	Steel	

CONSTRUCTION NOTES

DATE

JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT # 24SM5632

REGISTERED PROFESSIONAL ENGINEER No. 169276 DON I. OLSEN STATE OF UTAH 7/24

SCALES

0 1"

PLAN SCALE MEASURES 1" ON A FULL SIZE SHEET. ADJUST IF PRINTED AT OTHER SIZE.

PROJECT NAME:

GODFREY DENTAL OFFICE

PROJECT LOCATION:

340 W 3200 S
NIBLEY, UT 84321

SHEET TITLE:

MECHANICAL SCHEDULES

PLAN SET: PERMIT

SHEET M5.2

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_duct.rvt

Part 1 – General

1. The plumbing system shall be installed in strict accordance with local, state, and regional plumbing codes, state and local health department regulations, and OSHA regulations.
2. It shall be the responsibility of the plumbing contractor to pay for all fees and permits relating to his work.
   a. The plumbing contractor shall coordinate with the local gas company and shall arrange for the installation of the new gas meters. The new gas piping supplying the gas-fired HVAC equipment is sized for 4 ounce gas pressure.
   b. The plumbing contractor shall be an experienced firm regularly engaged in the installation of commercial plumbing systems in accordance with local codes. The owner's representative may reject any proposed contractor who cannot show evidence of such qualifications
   c. Visit the jobsite prior to bidding the project to become familiar with the existing conditions and any interference. Should a condition arise where a change would be advisable, secure approval of change before proceeding with work.

Part 2 – Piping Materials and Valves

1. Piping materials and fittings shall be as follows:
   a. New domestic water piping shall be ASTM B88 Type L hard drawn copper with ANSI B16.22 wrought copper fittings and 95-5 solder aboveground, and Type K soft copper belowground.
   b. New waste and vent piping 1-1/2" and smaller shall be ASTM A120 Grade A schedule galvanized steel pipe with threaded cast iron drainage fittings, 2" and larger shall be cast iron, ASTM A-888 'no-hub' with ASTM C-1277 standard neoprene gaskets and type 304 stainless steel connector bands aboveground or FM 1680 Class I heavy duty type 304 stainless steel connector bands capable of withstanding 125 in-lbs of torque belowground.
   c. Alternate waste and vent piping shall be either ASTM D2661 or ASTM D2665 PVC piping or fitting. The installation shall comply with IAPMO IS9. Underground ABS or PVC piping shall be laid in 6-inch deep bed of sand.
   d. New gas piping shall be ASTM A53 schedule 40 black steel pipe with ANSI 16 .3 150 lb. malleable iron fittings aboveground and polyethylene as approved by the local gas utility company for below ground installation.
2. Valves:
   All valves must be accessible. Valves located above a hard ceiling or in a wall shall have and approved access door. Valve stems shall be installed horizontal or higher than the valve. All valves shall be of the same manufacturer.
   a. Ball valves: 2" and smaller shall be rated for 125 PSIG WOG at 220 degree F., bronze construction conforming to ASTM B62, solder ends, bubble tight Teflon seat (at 100 PSIG under water), with a hard chrome plated brass or stainless steel ball. The valve shall operate with flow in either direction and shall be suitable for throttling and tight shut off. Provide watts B-6001.

Part 3 – Fixtures, Equipment, Drains and Trim

1. Approved manufacturers for fixtures and trim:
   a. Fixtures: American Standard, Kohler, Eljer, and Elkay
   b. Carriers, etc,: J.R. Smith, Josam, Wade, and Zurn.
   c. Trim: American Standard, Chicago Faucets, Elkay, Kohler and T&S Brass
   d. Flush Valves: Sloan, Delaney, and Zurn Z6000 Series.
2. All water faucets shall meet N.S.F Standard Section 9 for drinking water faucets and shallbe certified by underwriters laboratory. The product shall be manufactured from brass construction, brass components which contact within the faucet shall be from brass which contains no more than 3% lead by dry weight.
3. Water heaters shall be shown on the plumbing drawings.

Part 4 – Piping Insulation

1. Piping insulation shall conform to the current energy code as adopted by the state. No insulation shall be applied until all pressure tests are complete, leaks repaired, and the system is successfully retested. Insulation shall be ASTM C547, Class 1 Fiberglass one-piece preformed pipe insulation with an ASTM C921 all purpose (FASJ) fire retardant jacket. In lieu of fiberglass insulation, ASTM 3552, Type II, Class 2 Foam Glass or ASTM C534, Type 1 Thermacell or expanded polyurethane may be used. Fire and smoke hazard for the complete insulation system shall not exceed: Flame spread – 25, fuel contribution – 50, smoke development – 450 in accordance with ASTM E84 test methods.
2. Piping insulation thickness for new piping shall be as follows:

	Pipe Sizes	
Pipe Type Branch	Up to 2"	2-1/2" & up
Dom. Hot --	1.0"	1.5"
Dom. Cold--	0.5"	0.5"

3. Insulation protection shields equal to Grinnell figure 167 shall be installed on all insulated pipe 1" and larger. Hangers shall not contact the pipe where insulation is specified. Insert insulation shall be the same thickness as the adjoining pipe insulation.

Part 5 – Installation

1. New horizontal waste pipe shall be given a grade of ¼" per foot. 1/8" per foot slope must be approved by the authority having jurisdiction. Roof drain piping shall be given a grade of 1/8" per foot.
2. Vent inlets on the floor drains and floor sinks shall be above the weir of the traps they serve.
3. All plumbing fixture supplies with stops, p-traps, and trap arms shall be chrome plated.
4. Verify the locations and sizes of the existing domestic water, gas, and waste and make necessary new connections as required. Refer to the civil engineering drawings and coordinate with the general contractor the owner's representative.
5. The plumbing contractor shall periodically remove all debris and waste related to his work in order to maintain safe working and operating conditions, and shall dispose of the same in a approved manner at the completion of work, he shall remove all his rubbish, tools, and surplus material from and about the site, leaving his work clean and the area ready for occupancy.
6. Cleanouts shall be the same size as the pipe. Where cleanouts in connection with threaded pipe are accessible, they shall be cast iron drainage T-patter 90 degree branch fitting with extra heavy brass screw plugs of the same size as the pipe (4" cleanout maximum).
7. All cleanouts shall be flush with wall or color complete with stainless steel cover plate for wall cleanouts and nickel bronze for floor cleanouts.
8. Arrange new piping to permit ready access to valves, unions, traps, and to clear opening of doors and access panels.
9. Adjust location of pipes, etc., to accommodate work from interference anticipated and encountered. Determine exact route and location of each pipe prior to fabrication. Make offsets, transition, and changes in direction of pipes as required to maintain proper head room and pitch of sloping lines whether or not indicated on drawings.
10. Insure that items to be furnished fit in space available. Make necessary field measurements to ascertain space requirements including those for connections and furnish and install equipment of size and shape so final installation shall suit true intent and meaning of contract documents.
11. Follow manufacturer's directions in delivery, storage, protection, and installation of materials. Promptly notify architect in writing of conflicts between requirements of contract documents and manufacturer's directions and obtain architects written instruction before proceeding with work. Bear expenses arising from correcting deficiencies of work that to do not comply with manufacturer's direction or such written instruction from architect and/or owner's representative.
12. Deliver material to site and tightly cover and protect against dirt, water, and chemical or mechanical injury but have readily accessible for inspection. Store items subject to moisture damage in a dry heated space.
13. Vertical piping shall be secured at sufficiently close intervals to keep pipe alignment and carry the weight of the pipe and contents. Stacks shall be supported at their bases with approved metal clamps or hangers.
14. Support horizontal piping at sufficiently close intervals to maintain alignment and preventsagging or grade reversals in accordance with local plumbing code. Support each length of pipe by an approved hanger located not more than 18" from the joint. Approved manufacturers are ITT Grinnell fee & Mason MFG. Co., B-Line, or Kin-Line, Inc.
15. Support terminal ends of all horizontal runs or branches and each change of direction or alignment by an approved hanger.
16. All exterior gas piping exposed to weather shall be painted with a gray color enamel paint with rust inhibitor.
17. Changes in direction of horizontal waste and vent shall be made with the appropriate use 45 degree wyes, half wyes, long sweep 1/4/ bends, 1/6, 1/8, or 1/16 bends, except that sanitary tees may be used on waste lines where change in direction of flow is from the horizontal to the vertical.
18. Complete the installation of each plumbing fixture including chrome-plated trap and accessories with accessible chrome-plate trap and accessories with accessible chrome-plated stop or control valve in each hot and a cold water branch supply line. Make joint between water closet and floor flange tight with approved fixture setting compound or gasket. Interior exposed pipe, valves, and completion of project. Caulk between fixtures and wall and compound, point all edges. Install fixture as per local codes and manufacturer's instructions. Do not use flexible water piping.
19. Access panels shall be provided in walls or GWB ceilings where required to access valves or concealed equipment access doors shall be hinged and constructed of metal with a screwdriver latch. All access panels shall be 18" x 18", unless otherwise noted on the drawings. Fire-rated access panels shall be installed in fire-rated assemblies. Installation shall be in neat in final appearance.

Part 6 – Submittals

1. By description, catalog number and specific designation, standards are established for manufactured items which the contractor shall furnish as required by this section. Substitutions must be submitted and approved by the architect and/or owner's representative of products prior to bid for consideration. Substitutions of products shown shall be submitted to the architect, the owner's representative or engineer for written approval.
2. Shop drawings and up-to-date engineering data sheets and catalog information shall be furnished on the following items of equipment. Provide (6) copies for review.
   a. Fixtures and trim
   b. Water heater
   c. Plumbing equipment and specialties
   d. Valves, strainers, etc.

Part 7 – Cutting and Patching

1. Cutting and patching of floors, roof and walls to facilitate the plumbing system installation shall be by the general contractor, the cost of which shall be paid for by the plumbing contractor the plumbing contractor shall coordinate all cutting and patching with the general contractor and owner's representative.
2. The plumbing contractor shall be responsible for required digging, backfilling and compaction.
3. The general contractor shall be perform the required cutting, and patching incident to this work, and make required repairs afterward to satisfaction of architect and the owner's representative. Cut carefully to minimize necessity for repairs to existing work. Do not cut beams, columns, or trusses. Patch and repair walls, floors, ceiling and roofs with materials of same quality and appearance as adjacent surfaces unless otherwise shown. Surface finishes shall exactly match existing finishes of same materials. The plumbing contractor shall bear expense of cutting, patching, repairing, and replacing of work of other contractors required because of his fault, error, tardiness, or because of damage done by the plumbing.
4. Schedule all work so as not to interfere and/or disrupt the daily activities and/or operating hours of nearby buildings or operations. Coordinate as required with general contractor and the owner's representative.

Part 8 – Fire Assembly Penetrations

1. Coordinate the requirements with other trades, general contractor, architect, the owner's representative and the local authorities having jurisdiction
2. Provide sleeve at all floor piping penetrations. Provide U.L. Fire Penetration System Number FC1002, FC2008, FC3007, FC7001, WL002 or WL2002 for combustible construction or system number FA5001, FA8001, WL1002 or WL2002 for non-combustible construction of the U.L. building materials directory and as required by authorities having jurisdiction.
3. All penetrations through fire rated assemblies shall comply with U.L. Fire Resistance Directory, latest edition.
4. Access panels shall be provided in walls or GWB ceilings where required to access dampers or concealed equipment. Access doors shall be hinged and constructed of metal with a screwdriver latch. All access panels shall be minimum of 18" x 18" unless otherwise noted on drawings, or larger if required for the removal of equipment. Fire-rated access panels shall be installed in fire-rated assemblies. Installation shall be neat in final appearance.

Part 9 - Seismic Bracing

1. The plumbing contractors shall furnish and install required seismic bracing, restraints, equipment isolators, etc. for his installed equipment, piping, etc. all of which shall comply with PPIC and SMACNA guidelines for the local seismic zone requirements and in accordance with authorities having jurisdiction.

Part 10 - As-Built Drawings

1. The plumbing contractor shall keep a record set of drawings neatly marked with changes from the original design and drawings. These drawings shall be delivered to the architect and/or owner's representative at the completion of the project and prior to receiving final payment.

Part 11 – Check, Test and Start-Up

1. All new, altered, extended or replaced plumbing shall be left uncovered and unconcealed until it has been tested or approved. Where such work has been covered or concealed before it is tested and approved, it shall be exposed at the plumbing contractor's expense for testing and approval.
2. Each system shall be adjusted to insure proper functioning and shall be left in first class operating condition. Contractor shall perform all tests in the presence of the owner's representative.
   a. Hydrostatically test the new waste and vent system indoors to hold not less than 5 PSIG or 10 feet of head pressure for 2 hours with no decrease in pressure.
   b. Test the new domestic water systems to hold not less than 100 PSIG (or 1-1/2 times the working pressure in the pipe, whichever is greater) air pressure (or hydrostatic) for 4 hours with no decrease in pressure.
   c. Gas piping shall be test at 60 PSIG for no less than 30 minutes in accordance with the local gas company's good practices. All tests shall be maintained without leaks or pressure loss for the specified time, with allowance for the temperature changes. Repair all leaks and repeat tests where required.
3. The plumbing contractor shall provide material and labor required to perform start-up of each respective item of equipment, fixtures and systems. Submit test and start-up report to the architect and/or the owner's representative as applicable.
4. Clean all piping, equipment, etc. remove all grease, dirt and stains that have accumulated during the construction period.

Part 12 – Sterilization

1. Sterilize domestic water system with solution containing 250 parts per million minimum of available chlorine. Introduce chlorinating material into system a manner approved by the architect and local department of health. Allow sterilization solution to remain for 24 hours and open and close valves and faucets several times during that time. After sterilization, flush solution from system with clean water until residual chlorine content is less than 0.2 parts per million. Water system will not be accepted until negative bacteriological test is made on water taken from system. Repeat dosing as necessary until such negative test is accomplished and is acceptable to the local department of health. Provide report to owner's representative for approval.

Part 13 – Operation and Maintenance Manuals

1. Provide three (3) sets of O& M Manuals covering all new valves, equipment and appurtenances for the owner's use as applicable. The format shall be as follows:
   a. Size: 8 1/2x11 inches
   b. Paper: Manufacturer's printed data, or neatly type-written
   c. Provide reinforced punched binder tabs, bound in with text.
   d. Provide fly-leaf for each separate product, or each piece of operating equipment. Provide typed description of product, and major component parts of equipment. Provide indexed tabs.
   e. Cover: Identify each volume with typed or printed title: "Operation and Maintenance instruction". List title of project, identity of general subject matter cover in the manual.
   f. Binders: Commercial quality three-ring binders with durable and cleanable plastic covers
   g. Provide neatly type written table of contents. List product by product name and other indentifying symbols as set for in contract documents.
   h. Include copy of each warranty, bond and service contract issued. Include parts lists, lubrication chart with maintenance schedule.

Part 14 – Instructions

1. Prior to final inspection or acceptance, fully instruct the owner's designated operation and maintenance personnel in the operation, adjustment and maintenance of products, equipment and systems. (Minimum 2-hours instruction period required or more if requested by the owner's representative).

Part 15 – Warranty and Guarantee

1. The plumbing contractor shall be responsible for the complete new plumbing systems installation and shall provide a one (1) year parts and labor warranty for his performed work after equipment start-up and the owner's representative's acceptance. Should any trouble develop during this period due to defective materials or faulty workmanship, the contractor shall furnish all necessary labor and materials to correct the trouble without any cost to the owner. Any materials found to be defective during the guarantee period shall be corrected immediately to the entire satisfaction of the owner.
2. The contract shall be responsible for all damage to any part of the premises cause by leak or breaks in pipe or equipment furnished and/or installed by this contractor for a period of (1) year from the date of acceptance of the work by the owner. The contractor shall make all necessary repairs to the owner's representative's satisfaction and at no additional cost.

PLUMBING SYMBOLS

PRESSURE REDUCING VALVE
BALL VALVE
REDUCER
GATE VALVE
GLOBE VALVE
2 WAY CONTROL VALVE
3 WAY CONTROL VALVE
CHECK VALVE
SOLENOID VALVE
BALANCE VALVE
GAS COCK
BUTTERFLY VALVE
OS & Y VALVE
STRAINER
SAFETY RELIEF VALVE
VALVE IN VERTICAL
FLOOR SINK
FLOOR DRAIN
GRADE CLEANOUT
FLOOR CLEANOUT
WALL CLEANOUT
VENT THROUGH ROOF
PIPE DOWN
PIPE UP
UNION
CAP
DOUBLE CHECK BACKFLOW PREVENTER
REDUCED PRESSURE BACKFLOW PREVENTER
POINT OF CONNECTION

PLUMBING ABREVIATIONS

EXISTING	(E)
AIR ADMITTANCE VALVE	A.A.V.
ABOVE FINISHED FLOOR	A.F.F.
CONDENSATE	COND
COLD WATER	CW
DOWN	DN
DOMESTIC	DOM
FLOOR CLEAN OUT	FCO
HOT WATER	HW
HOT WATER RETURN	HWR
NATURAL GAS	NG
REFRIGERANT	REF
SANITARY	SAN
TEMPERED WATER	TW
VENT	V
VENT THROUGH ROOF	VTR
WALL CLEAN OUT	WCO

CONSTRUCTION NOTES

DATE
JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT # 24SM5632

REGISTERED PROFESSIONAL ENGINEER No. 169278 DON J. OLSEN STATE OF UTAH 1/7/25

SCALES
1 1/2" = 1'-0"
0 1"
BAR SCALE MEASURES 1" ON A FULL SIZE SHEET. ADJUST ACCORDINGLY

PROJECT NAME:
GODFREY DENTAL OFFICE

PROJECT LOCATION:
340 W 3200 S
NIBLEY, UT 84321

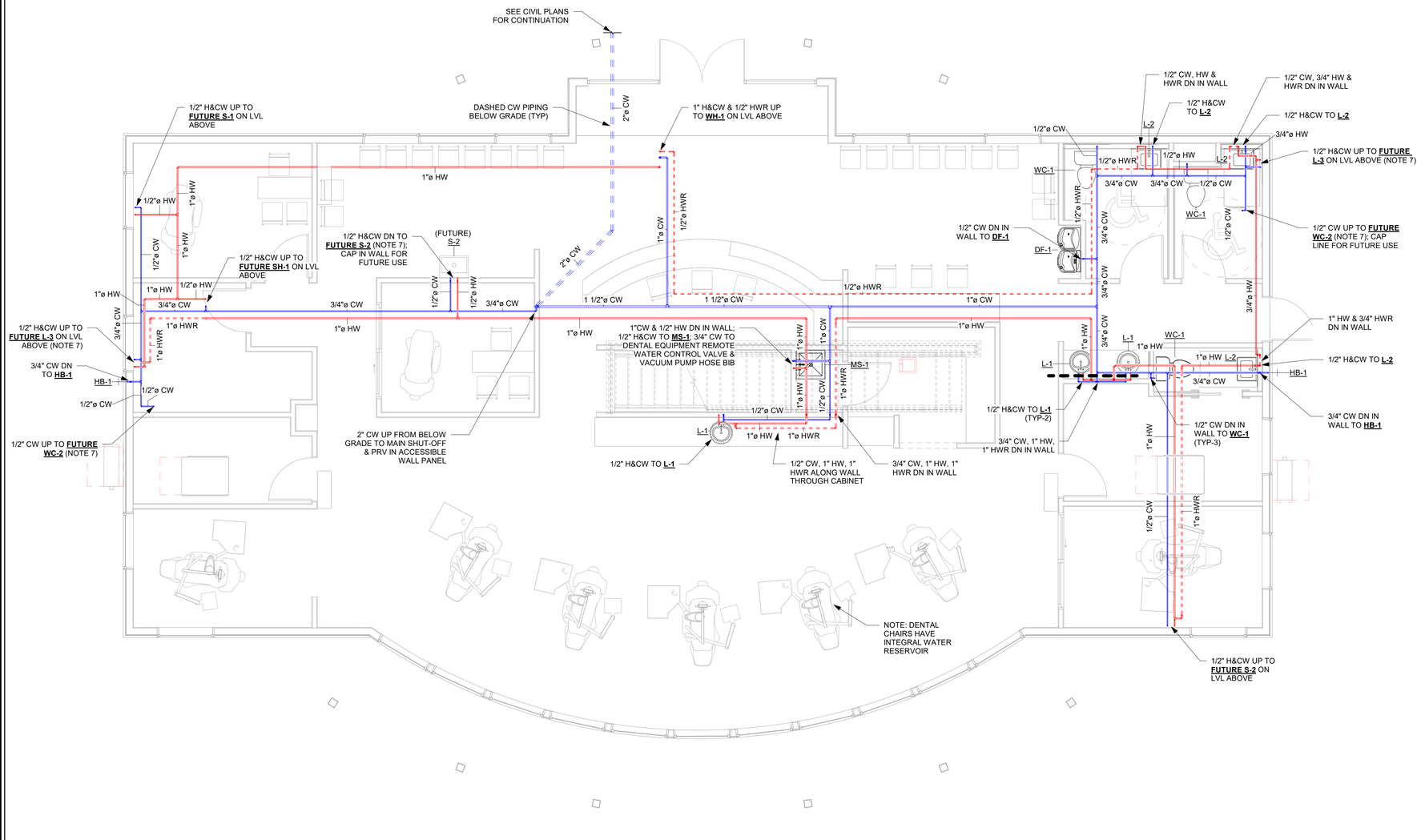
SHEET TITLE:
PLUMBING GENERAL NOTES

PLAN SET: PERMIT
SHEET P0.1

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_Ductless.rvt

PLUMBING GENERAL NOTES

1. VERIFY EXISTING SIZES AND LOCATIONS OF ALL PIPING BEFORE BEGINING CONSTRUCTION. NOTIFY OWNER/ENGINEER OF ANY DISCREPANCIES.
2. ALL HORIZONTAL SANITARY PIPING SHOWN IS LOCATED BELOW FLOOR OF ASSOCIATED LEVEL UNLESS NOTED OTHERWISE.
3. ALL HORIZONTAL DOMESTIC, GAS, REFRIGERANT, AND VENT PIPING SHOWN IS LOCATED IN CEILING SPACE OF ASSOCIATED LEVEL UNLESS NOTED OTHERWISE.
4. BRANCH PIPE SIZE SHALL MATCH FIXTURE CONNECTION SIZE UNLESS NOTED OTHERWISE. SEE PLUMBING FIXTURE SCHEDULE FOR DETAIL.
5. PROVIDE ISOLATION VALVES ON ALL PLUMBING FIXTURES AND EQUIPMENT FOR SERVICE.
6. PROVIDE GAS REGULATOR AT ALL NATURAL GAS EQUIPMENT UNLESS EQUIPMENT IS RATED FOR GAS SERVICE PRESSURE.
7. HOT WATER RETURN LOOP PIPE MUST BE WITHIN 2 FEET OF LAVATORY SHUT-OFF VALVE. PROVIDE ADDITIONAL HOT WATER RETURN PIPING AS NEEDED FOR COMPLICANCE WITH THIS REQUIREMENT.



1 FIRST LEVEL PLUMBING PLAN
1/4" = 1'-0"

CONSTRUCTION NOTES

DATE
JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT # 24SM5632

REGISTERED PROFESSIONAL ENGINEER No. 169278 DON I. OLSEN STATE OF UTAH

SCALES
As indicated
0 1"
BAR SCALE MEASURES 1" ON A FULL SIZE SHEET (D)

PROJECT NAME:
GODFREY DENTAL OFFICE

PROJECT LOCATION:
340 W 3200 S
NIBLEY, UT 84321

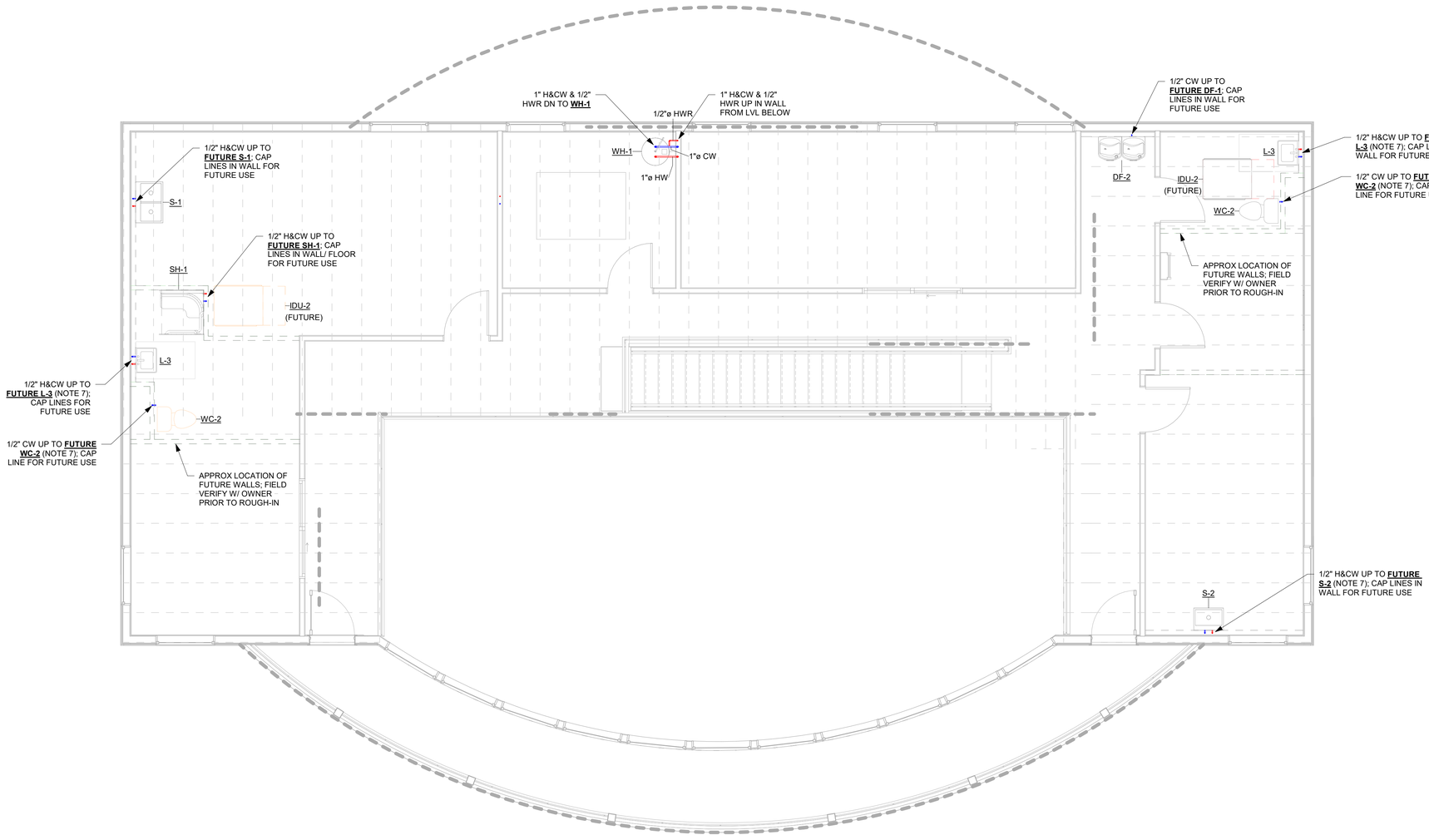
SHEET TITLE:
FIRST LEVEL PLUMBING PLAN

PLAN SET: PERMIT
SHEET P1.1

S:\Projects\24SM5632-Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_Architect.rvt

PLUMBING GENERAL NOTES

1. VERIFY EXISTING SIZES AND LOCATIONS OF ALL PIPING BEFORE BEGINING CONSTRUCTION. NOTIFY OWNER/ENGINEER OF ANY DISCREPANCIES.
2. ALL HORIZONTAL SANITARY PIPING SHOWN IS LOCATED BELOW FLOOR OF ASSOCIATED LEVEL UNLESS NOTED OTHERWISE.
3. ALL HORIZONTAL DOMESTIC, GAS, REFRIGERANT, AND VENT PIPING SHOWN IS LOCATED IN CEILING SPACE OF ASSOCIATED LEVEL UNLESS NOTED OTHERWISE.
4. BRANCH PIPE SIZE SHALL MATCH FIXTURE CONNECTION SIZE UNLESS NOTED OTHERWISE. SEE PLUMBING FIXTURE SCHEDULE FOR DETAIL.
5. PROVIDE ISOLATION VALVES ON ALL PLUMBING FIXTURES AND EQUIPMENT FOR SERVICE.
6. PROVIDE GAS REGULATOR AT ALL NATURAL GAS EQUIPMENT UNLESS EQUIPMENT IS RATED FOR GAS SERVICE PRESSURE.
7. HOT WATER RETURN LOOP PIPE MUST BE WITHIN 2 FEET OF LAVATORY SHUT-OFF VALVE. PROVIDE ADDITIONAL HOT WATER RETURN PIPING AS NEEDED FOR COMPLICANCE WITH THIS REQUIREMENT.



1 SECOND LEVEL PLUMBING PLAN
1/4" = 1'-0"

CONSTRUCTION NOTES

DATE
JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO
PROJECT # 24SM5632

REGISTERED PROFESSIONAL ENGINEER No. 169270 DON L. OLSEN STATE OF UTAH

SCALES
As indicated
0 1"
PLOT SCALE WILL BE 1" = 1' FOR A FULL SIZE SHEET. ADJUST FOR A HALF SIZE SHEET.

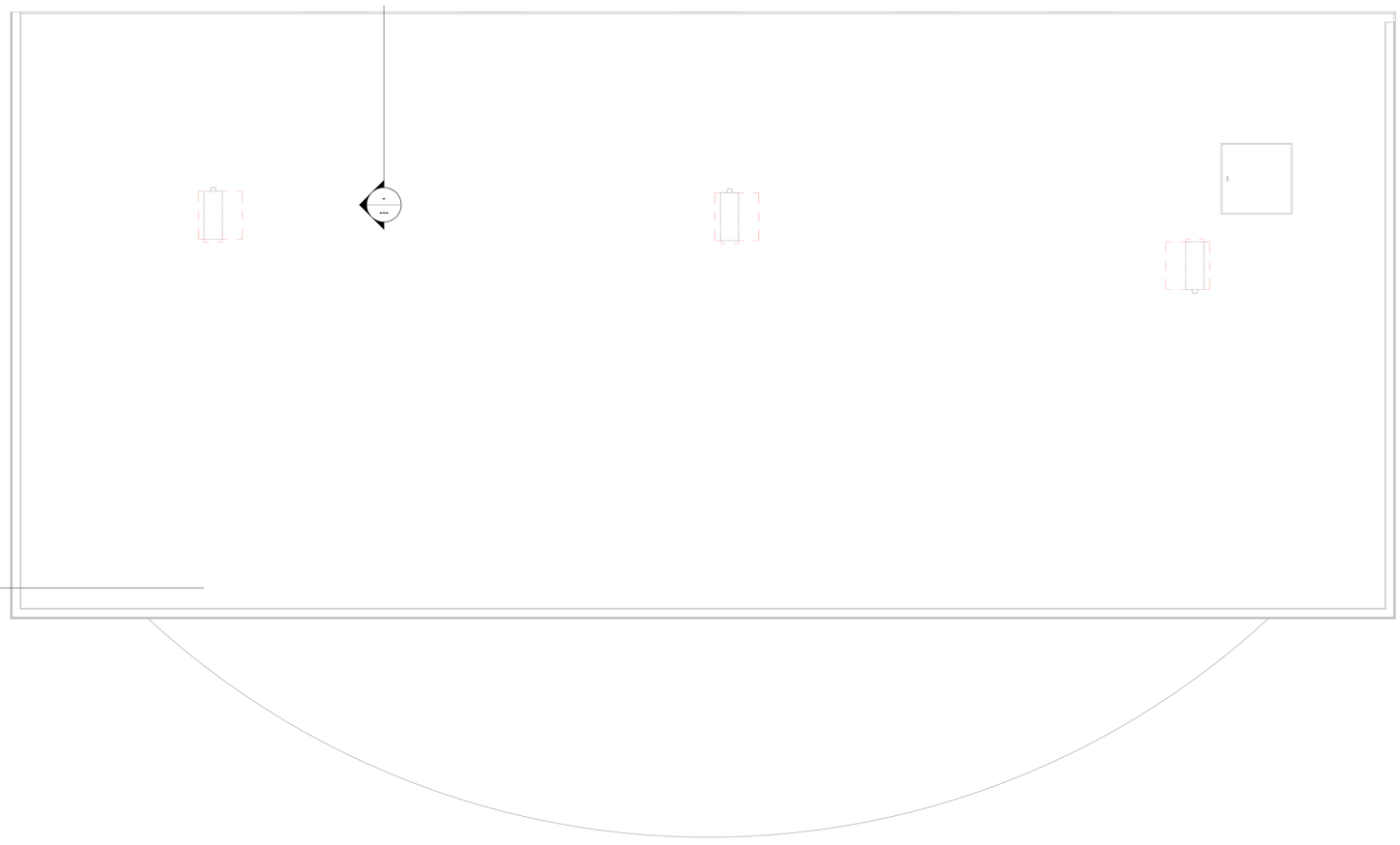
PROJECT NAME:
GODFREY DENTAL OFFICE

PROJECT LOCATION:
340 W 3200 S
NIBLEY, UT 84321

SHEET TITLE:
SECOND LEVEL PLUMBING PLAN

PLAN SET: PERMIT
SHEET P1.2

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_duotess.rvt



1 ROOF PLUMBING PLAN
1/4" = 1'-0"

PLUMBING GENERAL NOTES

1. VERIFY EXISTING SIZES AND LOCATIONS OF ALL PIPING BEFORE BEGINING CONSTRUCTION. NOTIFY OWNER/ENGINEER OF ANY DISCREPANCIES.
2. ALL HORIZONTAL SANITARY PIPING SHOWN IS LOCATED BELOW FLOOR OF ASSOCIATED LEVEL UNLESS NOTED OTHERWISE.
3. ALL HORIZONTAL DOMESTIC, GAS, REFRIGERANT, AND VENT PIPING SHOWN IS LOCATED IN CEILING SPACE OF ASSOCIATED LEVEL UNLESS NOTED OTHERWISE.
4. BRANCH PIPE SIZE SHALL MATCH FIXTURE CONNECTION SIZE UNLESS NOTED OTHERWISE. SEE PLUMBING FIXTURE SCHEDULE FOR DETAIL.
5. PROVIDE ISOLATION VALVES ON ALL PLUMBING FIXTURES AND EQUIPMENT FOR SERVICE.
6. PROVIDE GAS REGULATOR AT ALL NATURAL GAS EQUIPMENT UNLESS EQUIPMENT IS RATED FOR GAS SERVICE PRESSURE.
7. HOT WATER RETURN LOOP PIPE MUST BE WITHIN 2 FEET OF LAVATORY SHUT-OFF VALVE. PROVIDE ADDITIONAL HOT WATER RETURN PIPING AS NEEDED FOR COMPLICANCE WITH THIS REQUIREMENT.

CONSTRUCTION NOTES

DATE

OCTOBER 2024

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT #
24SM5632

SCALES

As indicated

0 1"
HAR SCALE MEASURES 1" ON A FULL SIZE SHEET. ADJUST AS REQUIRED

PROJECT NAME:

GODFREY DENTAL OFFICE

PROJECT LOCATION:

340 W 3200 S
NIBLEY, UT 84321

SHEET TITLE:

ROOF PLUMBING PLAN

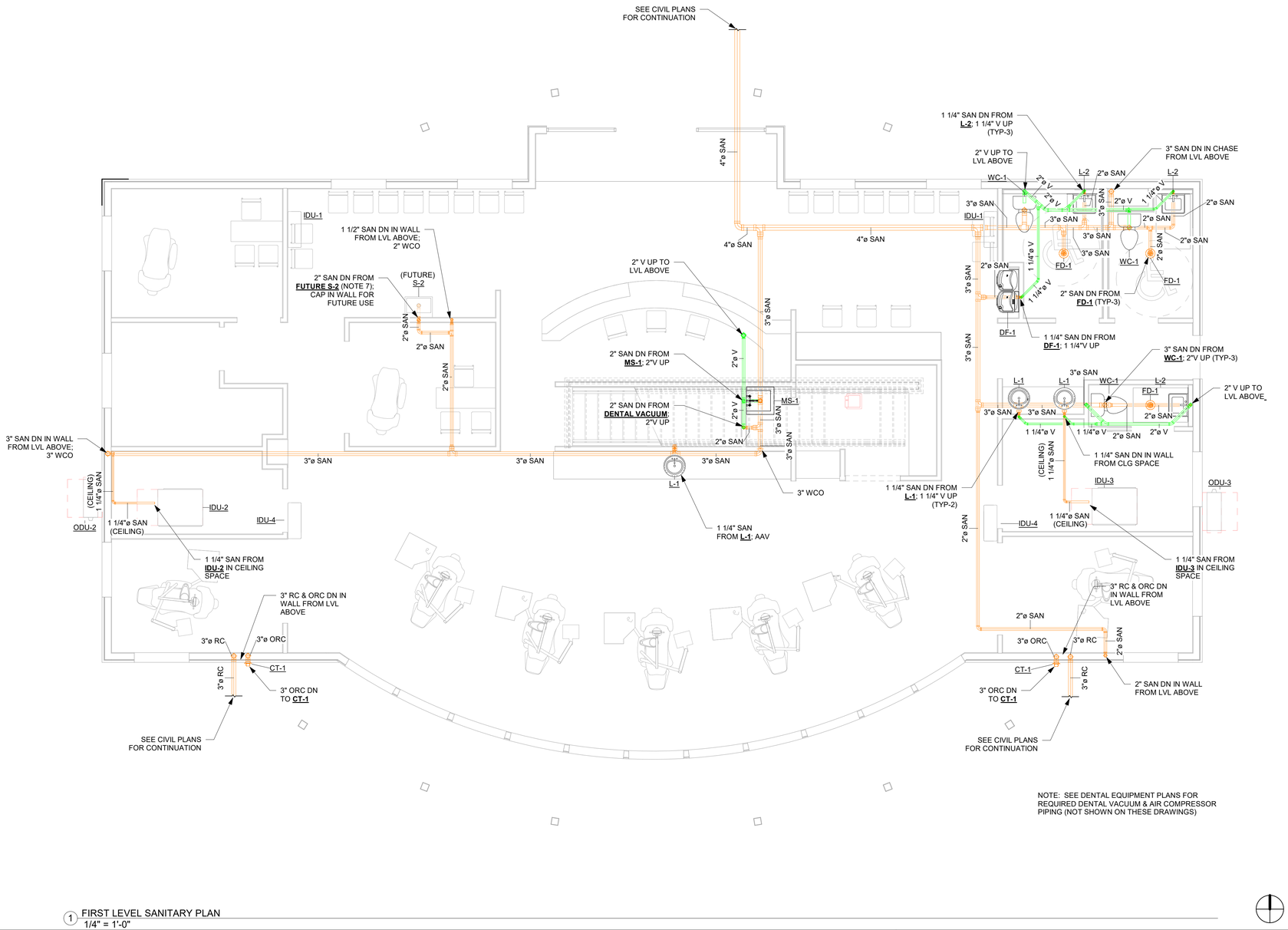
PLAN SET: PERMIT

SHEET P1.3

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_2024.rvt

PLUMBING GENERAL NOTES

1. VERIFY EXISTING SIZES AND LOCATIONS OF ALL PIPING BEFORE BEGINING CONSTRUCTION. NOTIFY OWNER/ENGINEER OF ANY DISCREPANCIES.
2. ALL HORIZONTAL SANITARY PIPING SHOWN IS LOCATED BELOW FLOOR OF ASSOCIATED LEVEL UNLESS NOTED OTHERWISE.
3. ALL HORIZONTAL DOMESTIC, GAS, REFRIGERANT, AND VENT PIPING SHOWN IS LOCATED IN CEILING SPACE OF ASSOCIATED LEVEL UNLESS NOTED OTHERWISE.
4. BRANCH PIPE SIZE SHALL MATCH FIXTURE CONNECTION SIZE UNLESS NOTED OTHERWISE. SEE PLUMBING FIXTURE SCHEDULE FOR DETAIL.
5. PROVIDE ISOLATION VALVES ON ALL PLUMBING FIXTURES AND EQUIPMENT FOR SERVICE.
6. PROVIDE GAS REGULATOR AT ALL NATURAL GAS EQUIPMENT UNLESS EQUIPMENT IS RATED FOR GAS SERVICE PRESSURE.
7. HOT WATER RETURN LOOP PIPE MUST BE WITHIN 2 FEET OF LAVATORY SHUT-OFF VALVE. PROVIDE ADDITIONAL HOT WATER RETURN PIPING AS NEEDED FOR COMPLICANCE WITH THIS REQUIREMENT.



NOTE: SEE DENTAL EQUIPMENT PLANS FOR REQUIRED DENTAL VACUUM & AIR COMPRESSOR PIPING (NOT SHOWN ON THESE DRAWINGS)

1 FIRST LEVEL SANITARY PLAN
1/4" = 1'-0"

CONSTRUCTION NOTES

DATE
JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT # 24SM5632

REGISTERED PROFESSIONAL ENGINEER — No. 169276 — DON I. OLSEN — STATE OF UTAH

SCALES
As indicated
1" — IF NOT FULL SIZE, ADJUST ITEM IS A WHOLE SIZE SHEET

PROJECT NAME:
GODFREY DENTAL OFFICE

PROJECT LOCATION:
340 W 3200 S
NIBLEY, UT 84321

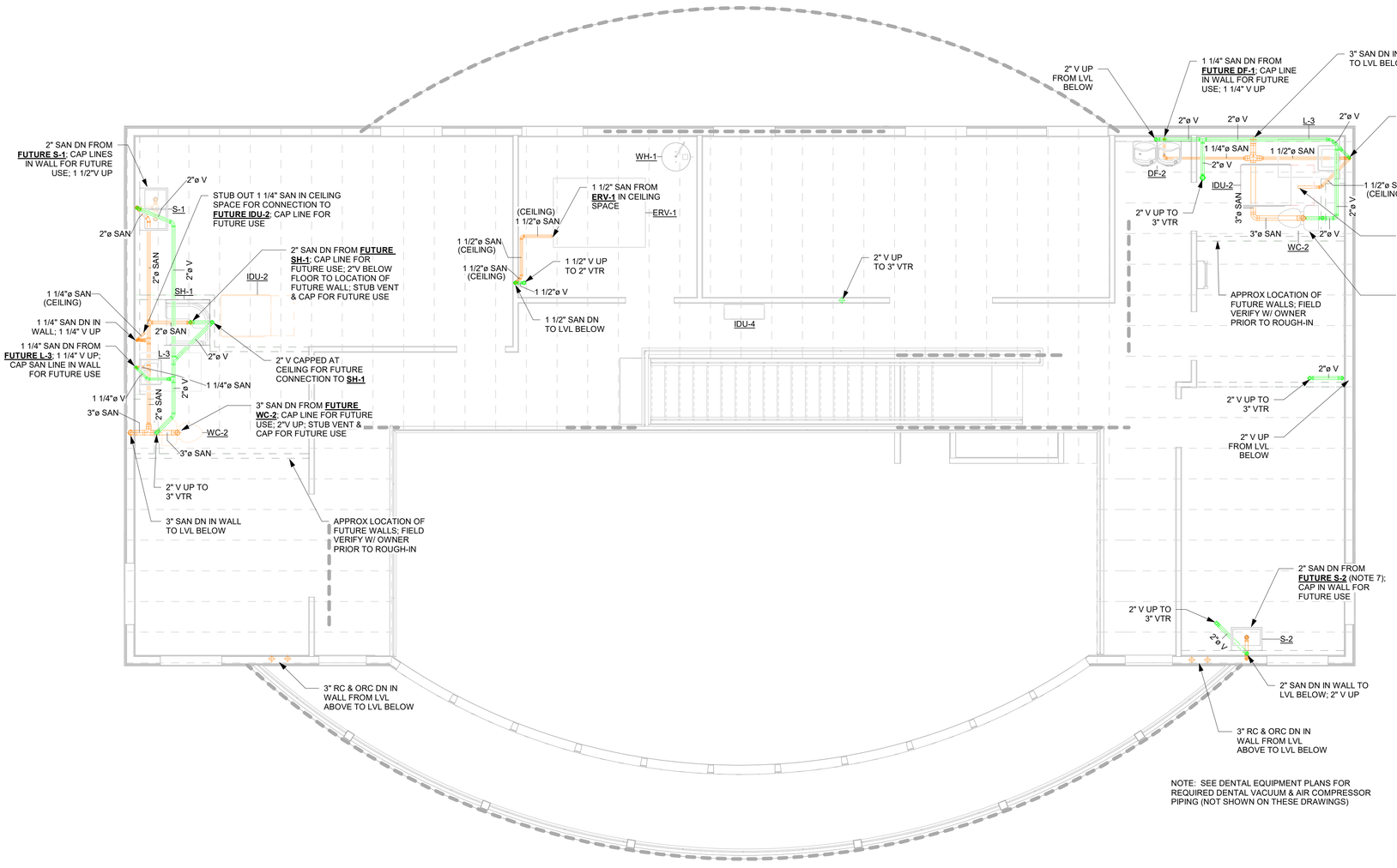
SHEET TITLE:
FIRST LEVEL SANITARY PLAN

PLAN SET: PERMIT
SHEET P2.1

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_duotess.rvt

PLUMBING GENERAL NOTES

1. VERIFY EXISTING SIZES AND LOCATIONS OF ALL PIPING BEFORE BEGINING CONSTRUCTION. NOTIFY OWNER/ENGINEER OF ANY DISCREPANCIES.
2. ALL HORIZONTAL SANITARY PIPING SHOWN IS LOCATED BELOW FLOOR OF ASSOCIATED LEVEL UNLESS NOTED OTHERWISE.
3. ALL HORIZONTAL DOMESTIC, GAS, REFRIGERANT, AND VENT PIPING SHOWN IS LOCATED IN CEILING SPACE OF ASSOCIATED LEVEL UNLESS NOTED OTHERWISE.
4. BRANCH PIPE SIZE SHALL MATCH FIXTURE CONNECTION SIZE UNLESS NOTED OTHERWISE. SEE PLUMBING FIXTURE SCHEDULE FOR DETAIL.
5. PROVIDE ISOLATION VALVES ON ALL PLUMBING FIXTURES AND EQUIPMENT FOR SERVICE
6. PROVIDE GAS REGULATOR AT ALL NATURAL GAS EQUIPMENT UNLESS EQUIPMENT IS RATED FOR GAS SERVICE PRESSURE.
7. HOT WATER RETURN LOOP PIPE MUST BE WITHIN 2 FEET OF LAVATORY SHUT-OFF VALVE. PROVIDE ADDITIONAL HOT WATER RETURN PIPING AS NEEDED FOR COMPLICANCE WITH THIS REQUIREMENT.



NOTE: SEE DENTAL EQUIPMENT PLANS FOR REQUIRED DENTAL VACUUM & AIR COMPRESSOR PIPING (NOT SHOWN ON THESE DRAWINGS)

1 SECOND LEVEL SANITARY PLAN
1/4" = 1'-0"

CONSTRUCTION NOTES

DATE
JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT # 24SM5632

REGISTERED PROFESSIONAL ENGINEER No. 168270 DON L. OLSEN STATE OF UTAH

SCALES
As indicated
0 1"
PLOT SCALE MUST EQUAL 1" FOR A FULL SIZE SHEET. ADJUST FOR A HALF SIZE SHEET

PROJECT NAME:
GODFREY DENTAL OFFICE

PROJECT LOCATION:
340 W 3200 S
NIBLEY, UT 84321

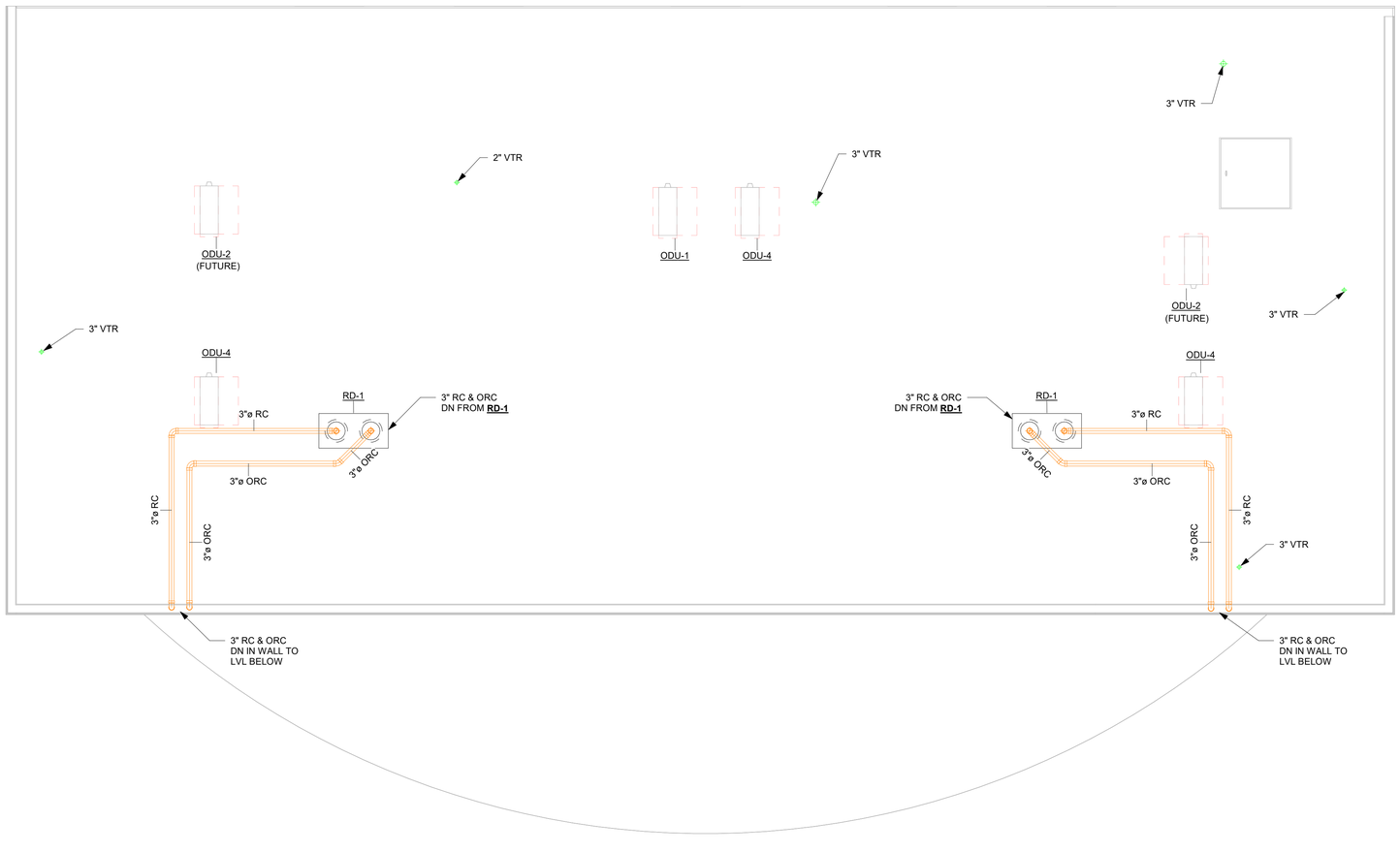
SHEET TITLE:
SECOND LEVEL SANITARY PLAN

PLAN SET: PERMIT
SHEET P2.2

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_duotexs.rvt

PLUMBING GENERAL NOTES

1. VERIFY EXISTING SIZES AND LOCATIONS OF ALL PIPING BEFORE BEGINING CONSTRUCTION. NOTIFY OWNER/ENGINEER OF ANY DISCREPANCIES.
2. ALL HORIZONTAL SANITARY PIPING SHOWN IS LOCATED BELOW FLOOR OF ASSOCIATED LEVEL UNLESS NOTED OTHERWISE.
3. ALL HORIZONTAL DOMESTIC, GAS, REFRIGERANT, AND VENT PIPING SHOWN IS LOCATED IN CEILING SPACE OF ASSOCIATED LEVEL UNLESS NOTED OTHERWISE.
4. BRANCH PIPE SIZE SHALL MATCH FIXTURE CONNECTION SIZE UNLESS NOTED OTHERWISE. SEE PLUMBING FIXTURE SCHEDULE FOR DETAIL.
5. PROVIDE ISOLATION VALVES ON ALL PLUMBING FIXTURES AND EQUIPMENT FOR SERVICE.
6. PROVIDE GAS REGULATOR AT ALL NATURAL GAS EQUIPMENT UNLESS EQUIPMENT IS RATED FOR GAS SERVICE PRESSURE.
7. HOT WATER RETURN LOOP PIPE MUST BE WITHIN 2 FEET OF LAVATORY SHUT-OFF VALVE. PROVIDE ADDITIONAL HOT WATER RETURN PIPING AS NEEDED FOR COMPLICANCE WITH THIS REQUIREMENT.



1 ROOF SANITARY PLAN
1/4" = 1'-0"

CONSTRUCTION NOTES

DATE

JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT #
24SM5632

REGISTERED PROFESSIONAL ENGINEER
No. 169278
DON I. OLSEN
STATE OF UTAH

SCALES

As indicated

0 1"
BAR SCALE MEASURES 1" ON A FULL SIZE SHEET (ANSI D)

PROJECT NAME:
GODFREY DENTAL OFFICE

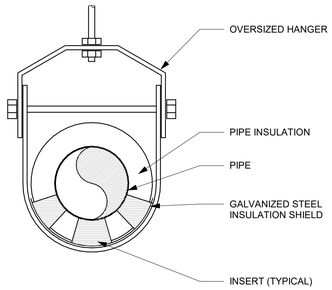
PROJECT LOCATION:
340 W 3200 S
NIBLEY, UT 84321

SHEET TITLE:
ROOF SANITARY PLAN

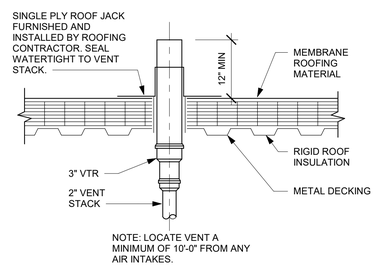
PLAN SET: PERMIT

SHEET P2.3

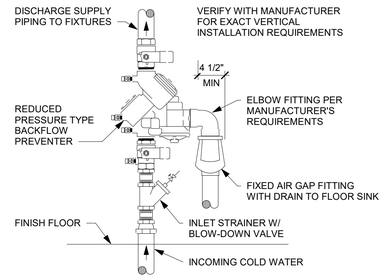
S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_Architect.rvt



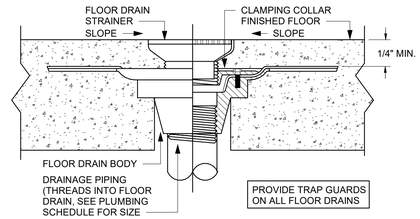
1 PIPE HANGER DETAIL
N.T.S.



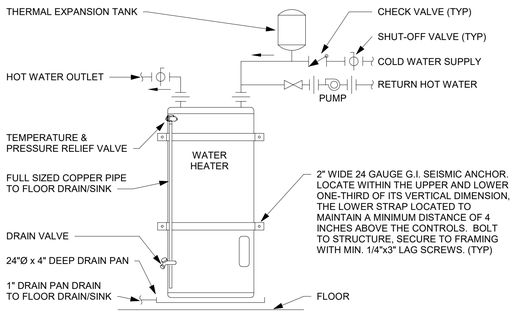
2 VENT THROUGH ROOF DETAIL
N.T.S.



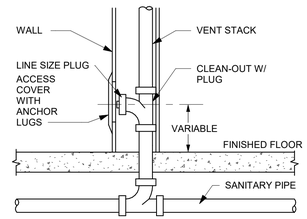
3 REDUCED PRESSURE BACKFLOW PREVENTER
N.T.S.



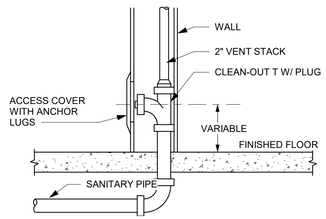
4 FLOOR DRAIN DETAIL
N.T.S.



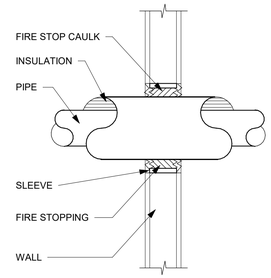
5 WATER HEATER PIPING DETAIL (ELECTRIC)
N.T.S.



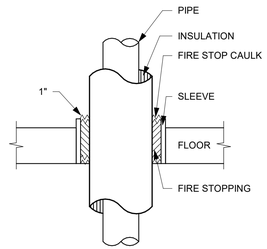
6 WALL CLEAN-OUT DETAIL (MID LINE)
N.T.S.



7 WALL CLEAN-OUT DETAIL (END LINE)
N.T.S.



8 PIPE WALL PENTRATION DETAIL
N.T.S.



9 PIPE FLOOR PENTRATION DETAIL
N.T.S.

PLUMBING FIXTURE SCHEDULE

GENERGAL FIXTURE NOTES:

1. THE PLUMBING CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF ALL PLUMBING EQUIPMENT AND THE RELATED ROUGH IN LOCATIONS WITH THE MECHANICAL AND ARCHITECTURAL PLANS AND SPECIFICATIONS. PROVIDE ALL ACCESSORIES AND OPTIONS REQUIRED TO PROVIDE THE OWNER A COMPLETELY FUNCTIONAL PLUMBING SYSTEM.
2. ALL WALL HUNG PLUMBING FIXTURES SHALL BE SUPPORTED BY FLOOR MOUNTED CARRIERS BY WADE, SMITH, JOSHAM, MIFAB, OR WATTS. CARRIERS SHALL BE CONSTRUCTED UTILIZING ALL METAL COMPONENTS WITH SUPPORT FEET SECURELY ANCHORED TO THE FLOOR STRUCTURE FIXTURES ARMS SHALL SUPPORT FIXTURE INDEPENDENT FROM WALL STRUCTURE.
3. EACH INDIVIDUAL FIXTURE SUPPLY SHALL BE PROVIDED WITH A CHROME-PLATED QUARTER TURN STOP VALVE BRASSCRAFT MODEL KTCR OR ENGINEER APPROVED EQUAL.
4. FIXTURES AND ACCESSORIES SHALL BE AS SCHEDULED. EACH ITEM SHALL BE COMPLETE WITH CHROME-PLATED BRASS TRIM.
5. ADA COMPLIANT FIXTURES SHALL BE INSTALLED WITH PRE-FORMED INSULATION AND PROTECTIVE COVERS ON P-TRAPS AND STOPS, COVERS TO BE MANUFACTURED BY BUCKAROOS OR TRUEBRO.
6. CAULK ALL FIXTURES TO THE WALL OR FLOOR WITH APPLICABLE SILICONE COMPOUND. UTILIZE MULTIPLE BEADS TO FILL GAPS AND FINISH TO SMOOTH, FILLETED EDGE. USE APPROPRIATE TOOLS TO PROVIDE PROFESSIONAL APPEARANCE.
7. ALL PLUMBING SHALL BE INSTALLED TO CONFORM TO THE LATEST ADOPTED EDITION OF THE INTERNATIONAL PLUMBING CODE INCLUDING LOCAL AMENDMENTS. CONSULT AUTHORITIES HAVING JURISDICTION.
8. PROVIDE TEMPORARY TOILET FACILITIES DURING CONSTRUCTION PER IPC SECTION 311.1 AND ANSI Z4.3.
9. ALL LAVATORIES TO BE PROVIDED WITH WATER-TEMPERATURE LIMITING DEVICE IN COMPLIANCE WITH ASSE 1070
10. WATER HAMMER ARRESTORS ARE TO BE PROVIDED AT ALL QUICK CLOSING VALVES AND FLUSHOMETERS PER IPC 604.9

TAG	CW	HW	SAN	VENT	MANUFACTURER	MODEL	DESCRIPTION
CT-1			3"		ZURN	Z199	Cow tongue
DF-1	1/2"		1 1/4"	1 1/4"	BY OWNER	BY OWNER	Bi-level ADA compliant drinking fountain
DF-2	1/2"		1 1/4"	1 1/4"	BY OWNER	BY OWNER	Future drinking fountain (not in scope)
FD-1			2"	2"	ZURN	FD2210	Floor Drain
HB-1	3/4"				BY OWNER	BY OWNER	Freeze resistant exterior hose bibb
L-1	1/2"	1/2"	1 1/4"	1 1/4"	BY OWNER	BY OWNER	Oval lavatory - vanity
L-2	1/2"	1/2"	1 1/4"	1 1/4"	BY OWNER	BY OWNER	Wall mount lavatory - ADA compliant
L-3	1/2"	1/2"	1 1/4"	1 1/4"	BY OWNER	BY OWNER	Future lavatory (not in scope)
MS-1	1/2"	1/2"	1 1/2"	1 1/2"	BY OWNER	BY OWNER	Mop Sink
RD-1			3"		Zurn	Z163	15 Inch Diameter Combination Main Roof and Overflow Drain with Low Silhouette Domes and Double Top-Set Deck Plate
S-1	1/2"	1/2"	2"	2"	BY OWNER	BY OWNER	Future break room sink (not in scope)
S-2	1/2"	1/2"	2"	2"	BY OWNER	BY OWNER	Future sink (not in scope)
SH-1	1/2"	1/2"	2"	2"	BY OWNER	BY OWNER	Future shower (not in scope)
WC-1	1/2"		3"	2"	BY OWNER	BY OWNER	ADA compliant water closet
WC-2	1/2"		3"	2"	BY OWNER	BY OWNER	Future ADA compliant water closet (not in scope)

ELECTRIC WATER HEATER SCHEDULE

1. MOUNT UNDER SINK/LAV. SEE DETAIL ON THIS SHEET.

TAG	MANUFACTURER	MODEL	TYPE	VOLATGE	POWER	NOTES
WH-1	A.O. Smith	HNT-55-100	ELECTRIC TANK	208/1/60	4500 VA	

CONSTRUCTION NOTES

DATE
JANUARY 2025

epic ENGINEERING

REVISIONS

MARK	DATE	DESCRIPTION

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO
PROJECT # 24SM5632

REGISTERED PROFESSIONAL ENGINEER No. 169278 DON J. OLSEN STATE OF UTAH 1/7/25

SCALES
As indicated
0 1"
BAR SCALE MEASURES 1" ON A FULL SIZE SHEET. ADJUST AS NECESSARY

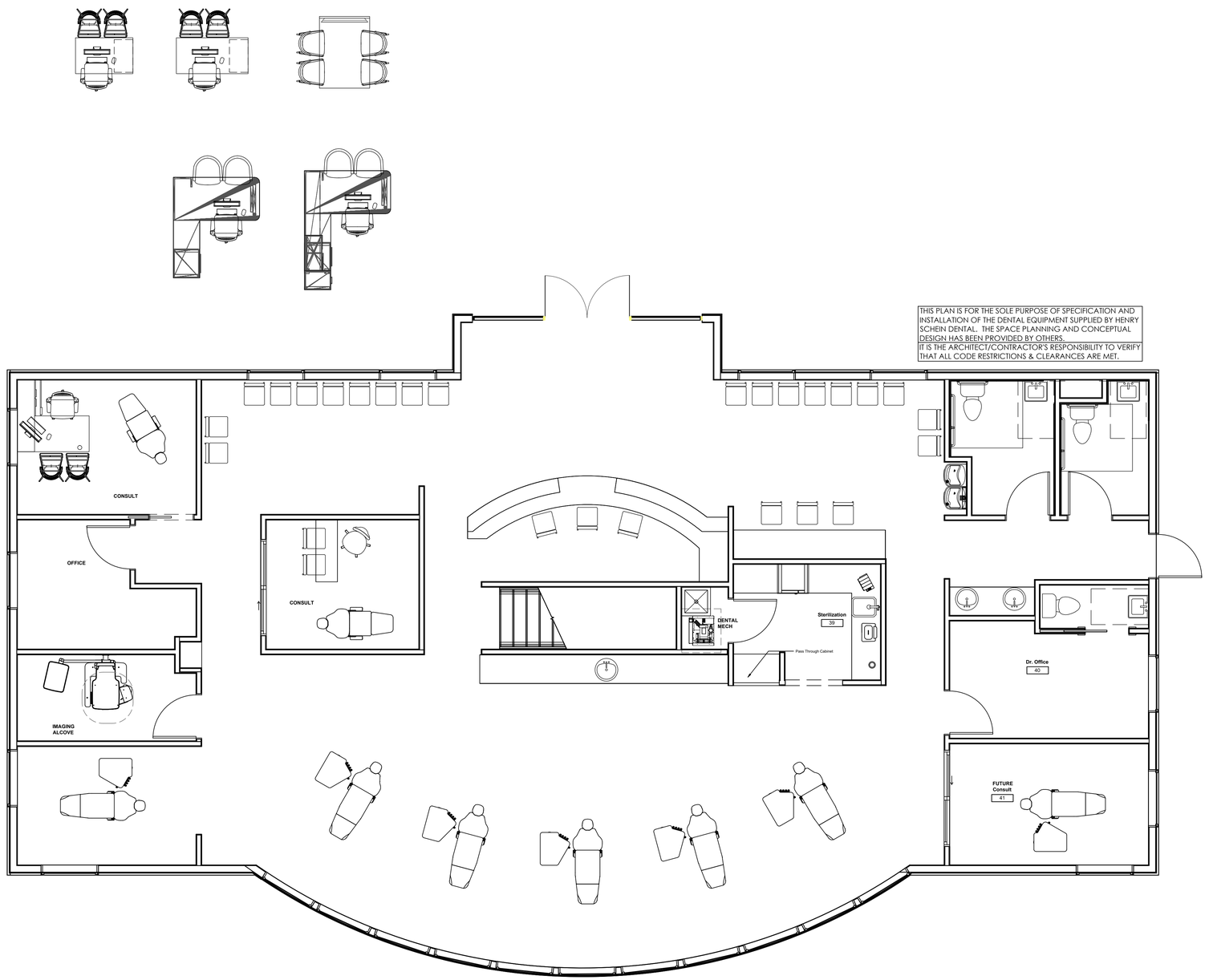
PROJECT NAME:
GODFREY DENTAL OFFICE

PROJECT LOCATION:
340 W 3200 S
NIBLEY, UT 84321

SHEET TITLE:
PLUMBING DETAILS AND SCHEDULES

PLAN SET: PERMIT
SHEET P5.2

S:\Projects\24SM5632 Godfrey Dental Office - MP Design\Drawings\Revit\GODFREY_MP_Jcobass.rvt



PROPOSED FIRST FLOOR PLAN

1/4"=1'-0"

HENRY SCHEIN®
INTEGRATED DESIGN STUDIO
10920 W LINCOLN AVE, WEST ALLIS, WI 53227
henryscheinintegrateddesign.com

PROJECT: **DR. TANNER GODFREY**

LOCATION: UTAH

HENRY SCHEIN REP:
ANDREW COTLLE

REGION:
UTAH

PHONE #:
801-842-4450

-IMPORTANT NOTE-
THIS DOCUMENT HAS BEEN PREPARED AS AN INSTRUMENT OF PROFESSIONAL SERVICE AND **IS NOT AN ARCHITECTURAL PLAN.** THE IDEAS/ DESIGN INCLUDED HEREIN ARE THE SOLE PROPERTY OF HENRY SCHEIN, INC. AND ARE PROTECTED UNDER COPYRIGHT. THESE PLANS MAY NOT BE USED OR REPRODUCED WITHOUT EXPRESSED WRITTEN CONSENT OF HENRY SCHEIN, INC. AND FULL PAYMENT OF ANY ASSOCIATED DESIGN FEES. **ALL DIMENSIONS ARE SUBJECT TO JOB-SITE VERIFICATION.**

PROJECT NUMBER:
24-1751

PROJECT START DATE:
9/4/2023

FINALS START DATE:
9/4/2023

DRAWN BY: ARCH
FINALS BY: LMW
CHECKED BY: TS

REVISIONS:

--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---

INT.SQ.FT.= PER ARCH

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

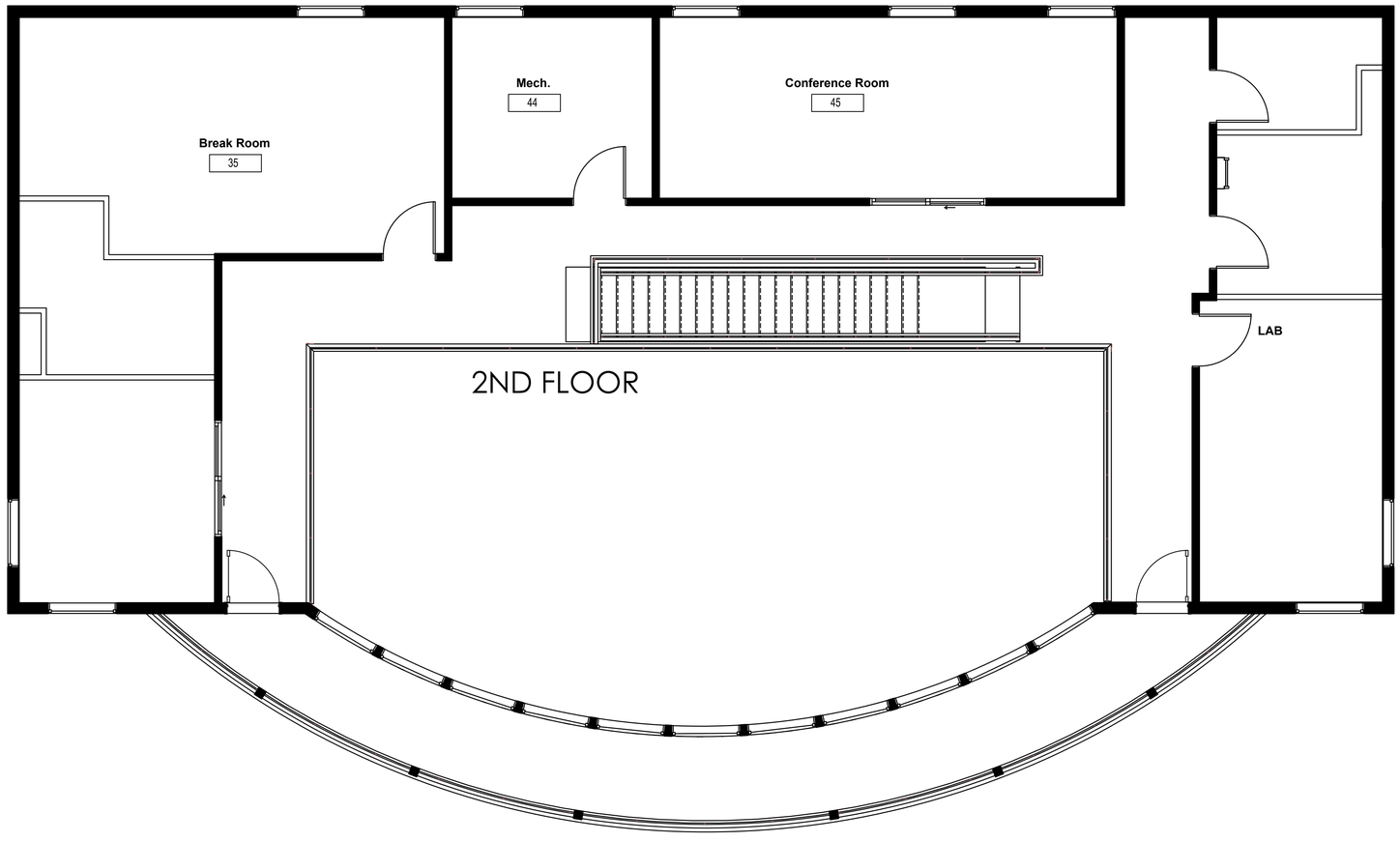
SHT. SIZE: 24 x 36

1ST FLOOR PLAN

SA.0

P:_ALL REGIONS\UT Utah\Godfrey\GODFREY-1-F

© 2024 by HENRY SCHEIN, INC.



PROPOSED SECOND FLOOR PLAN
1/4"=1'-0"

HENRY SCHEIN®
INTEGRATED DESIGN STUDIO
10920 W LINCOLN AVE, WEST ALLIS, WI 53227
henryscheinintegrateddesign.com

PROJECT: **DR. TANNER GODFREY**
LOCATION: UTAH

HENRY SCHEIN REP:
ANDREW COTLLE

REGION:
UTAH

PHONE #:
801-842-4450

-IMPORTANT NOTE-
THIS DOCUMENT HAS BEEN PREPARED AS AN INSTRUMENT OF PROFESSIONAL SERVICE AND **IS NOT AN ARCHITECTURAL PLAN.** THE IDEAS/ DESIGN INCLUDED HEREIN ARE THE SOLE PROPERTY OF HENRY SCHEIN, INC. AND ARE PROTECTED UNDER COPYRIGHT. THESE PLANS MAY NOT BE USED OR REPRODUCED WITHOUT EXPRESSED WRITTEN CONSENT OF HENRY SCHEIN, INC. AND FULL PAYMENT OF ANY ASSOCIATED DESIGN FEES. **ALL DIMENSIONS ARE SUBJECT TO JOB-SITE VERIFICATION.**

PROJECT NUMBER:
24-1751

PROJECT START DATE:
9/4/2023

FINALS START DATE:
9/4/2023

DRAWN BY: ARCH
FINALS BY: LMW
CHECKED BY: TS

REVISIONS:

--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---

INT.SQ.FT.= PER ARCH

SCALE: 1/4"=1'-0" | SHT. SIZE: 24 x 36

2ND FLOOR PLAN

SA.1

P:_ALL REGIONS\UT Utah\Godfrey\GODFREY-1-F

© 2024 by HENRY SCHEIN, INC.

REINFORCEMENT SPECIFICATIONS

QUANTITY	SPEC. NUMBER	DESCRIPTION	DETAIL
		PLEASE NOTE: A LICENSED CONTRACTOR IS RESPONSIBLE FOR PROVIDING EQUIPMENT BLOCKING. ALL REQUIREMENTS TO BE VERIFIED BY MANUFACTURER'S SPEC SHEETS PROVIDED BY HENRY SCHEIN DENTAL EQUIPMENT SPECIALIST. MANUFACTURER'S SPECS SUPERSEDE ANY AND ALL INFORMATION CONTAINED HEREIN.	
1	9C	PANORAMIC IMAGING UNIT (2D OR 3D) - SUPPLIED AND INSTALLED BY HENRY SCHEIN DENTAL. BLOCKING & ELECTRICAL BY CONTRACTOR(S). CONFIRM POWER REQUIREMENTS WITH HENRY SCHEIN DENTAL EQUIPMENT SPECIALIST.	9C

GENERAL NOTES

1. THIS SPECIFICATION SHEET IS INTENDED AS A GUIDE FOR TRADESMEN. THE FLOOR PLANS ENCLOSED HEREIN ARE SUGGESTIONS FOR THE PLACEMENT OF DENTAL EQUIPMENT. THEY ARE NOT INTENDED FOR CONSTRUCTION.

2. VERIFY ALL DIMENSIONS WITH HENRY SCHEIN DENTAL REP. ON JOBSITE. ON SITE MODIFICATIONS MAY NEED TO BE DONE BY CONTRACTOR, BUT SHOULD BE VERIFIED BY ALL PARTIES INVOLVED.

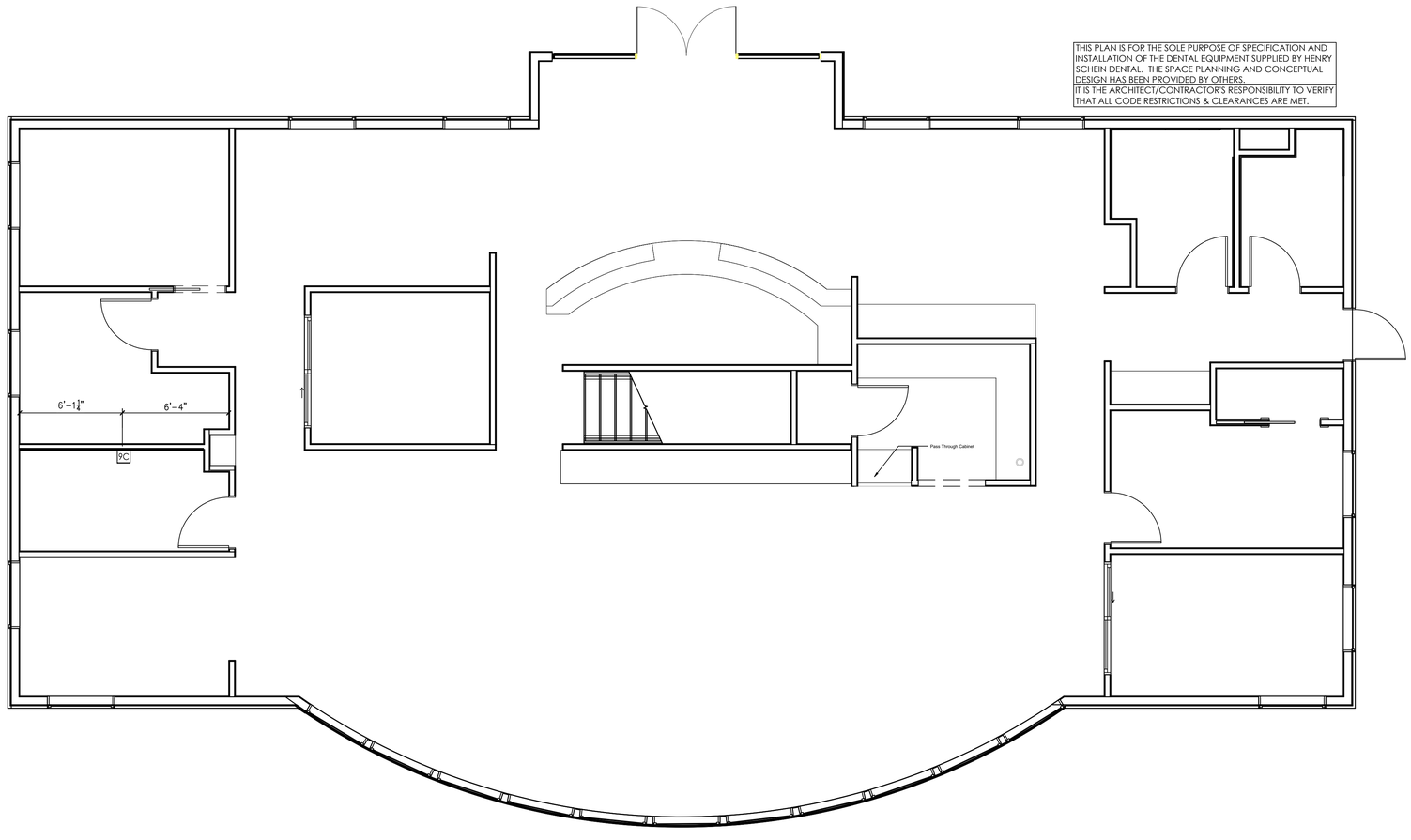
3. 5/8" GYPSUM WALLBOARD IS RECOMMENDED THROUGHOUT THE OFFICE TO PROVIDE SOUND ATTENUATION & ADDITIONAL PROTECTION AGAINST X-RAY SCATTER RADIATION.

WALL LEGEND

NEW REINFORCEMENT PLACED FOR WALL-MOUNTED EQUIPMENT. SEE "REINFORCEMENT SPECIFICATION SCHEDULE" FOR MORE INFORMATION.

SEE SHEETS SED.1 & SED.2 FOR DENTAL EQUIPMENT DETAILS

THIS PLAN IS FOR THE SOLE PURPOSE OF SPECIFICATION AND INSTALLATION OF THE DENTAL EQUIPMENT SUPPLIED BY HENRY SCHEIN DENTAL. THE SPACE PLANNING AND CONCEPTUAL DESIGN HAS BEEN PROVIDED BY OTHERS.
IT IS THE ARCHITECT/CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT ALL CODE RESTRICTIONS & CLEARANCES ARE MET.



DIMENSIONS & REINFORCEMENT SPECIFICATIONS

1/4"=1'-0"

HENRY SCHEIN®
INTEGRATED DESIGN STUDIO
10920 W LINCOLN AVE. WEST ALLIS, WI 53227
henryscheinintegrateddesign.com

PROJECT: **DR. TANNER GODFREY**

LOCATION: UTAH

HENRY SCHEIN REP:
ANDREW COTLLE

REGION:
UTAH

PHONE #:
801-842-4450

-IMPORTANT NOTE-
THIS DOCUMENT HAS BEEN PREPARED AS AN INSTRUMENT OF PROFESSIONAL SERVICE AND **IS NOT AN ARCHITECTURAL PLAN.** THE IDEAS / DESIGN INCLUDED HEREIN ARE THE SOLE PROPERTY OF HENRY SCHEIN, INC. AND ARE PROTECTED UNDER COPYRIGHT. THESE PLANS MAY NOT BE USED OR REPRODUCED WITHOUT EXPRESSED WRITTEN CONSENT OF HENRY SCHEIN, INC. AND FULL PAYMENT OF ANY ASSOCIATED DESIGN FEES. **ALL DIMENSIONS ARE SUBJECT TO JOB-SITE VERIFICATION.**

PROJECT NUMBER:
24-1751

PROJECT START DATE:
9/4/2023

FINALS START DATE:
9/4/2023

DRAWN BY: ARCH
FINALS BY: LMW
CHECKED BY: TS

REVISIONS:

--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---

INT.SQ.FT.= PER ARCH

SCALE: 1/4"=1'-0" | SHT. SIZE: 24 x 36

REINFORCEMENT PLAN

SA.1

P:_ALL REGIONS\UT Utah\Godfrey\GODFREY-1-F

© 2024 by HENRY SCHEIN, INC.

PREPARED FOR:

DR. TANNER GODFREY

GENERAL NOTES & CONDITIONS (ALL TRADES)

1. DEFINITIONS

HENRY SCHEIN, HENRY SCHEIN INC., HENRY SCHEIN DENTAL, OR HSD INC. REFERS TO THE EQUIPMENT SUPPLIER FOR THIS PROJECT ENGAGED BY THE OWNER UNDER A SEPARATE CONTRACT.

E.S. - "EQUIPMENT & TECHNOLOGY SPECIALIST" IS A HENRY SCHEIN EMPLOYEE THAT SPECIALIZES IN THE MANAGEMENT OF EQUIPMENT AND/OR TECHNOLOGY SALES AND INSTALLATIONS AND HAS ASSISTED THE OWNER IN THE PREPARATION OF DRAWINGS AND SPECIFICATIONS FOR THE CONSTRUCTION OF THE PROPOSED FACILITIES.

THE "**GENERAL CONTRACTOR**", ALSO KNOWN AS THE "**G.C.**" IS REFERRED TO AS THE PERSON(S) OR ENTITY WHO HAS ENTERED INTO A CONTRACTUAL AGREEMENT WITH THE OWNER FOR THE WORK DEFINED IN SUCH AGREEMENT. THE G.C. IS RESPONSIBLE FOR ALL WORK CARRIED OUT BY THEIR SUBCONTRACTORS OR SUBTRADES. IF THE CONSTRUCTION OF THE PROJECT IS LET UNDER SEPARATE CONTRACTS BY THE OWNER, THE RESPONSIBILITIES STIPULATED BELOW SHALL APPLY TO EACH CONTRACTOR.

THE "**OWNER**" IS REFERRED TO AS THE PERSON(S) OR ENTITY WHO OWNS OR LEASES THE PREMISES FOR WHICH A CONSTRUCTION AGREEMENT HAS BEEN ENTERED UPON WITH THE GENERAL CONTRACTOR. WHERE THE OWNER, AS REFERRED TO ABOVE, LEASES THE PREMISES THE ENTITY WHO HAS OWNERSHIP OF THE PROPERTY WILL BE REFERRED TO AS THE LANDLORD.

THE "**OWNER'S AGENT**" IS A REPRESENTATIVE OF THE AGENT ACTING ON THEIR BEHALF AND MAY HAVE THE AUTHORITY TO MAKE DECISIONS IN THEIR ABSENCE. THIS MAY BE AN OFFICE MANAGER, AN ARCHITECT, AN ENGINEER, OR A PROJECT MANAGER HIRED BY THE OWNER.

2. DRAWINGS

THESE DRAWINGS ARE PREPARED BY HENRY SCHEIN AS DENTAL CONSULTANTS FOR ASSISTING AN ARCHITECT/CONTRACTOR TO PRODUCE CONSTRUCTION DOCUMENTS & BUILD A DENTAL OFFICE. THEY DO NOT CONSTITUTE A COMPLETE SET OF CONSTRUCTION DOCUMENTS. ITEMS REQUIRED FOR BUILDING PERMITS OR CONSTRUCTION MAY NOT APPEAR ON THESE DRAWINGS. IF THESE DRAWINGS ARE BEING SUBMITTED FOR BUILDING PERMIT, IT REMAINS THE OWNER AND/OR GENERAL CONTRACTOR'S RESPONSIBILITY RETAIN THE PROPER CONSULTANTS TO PREPARE COMPLETE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

DOOR SPECIFICATIONS, LIGHTING DESIGN, FINAL REFLECTED CEILING PLANS, AND OTHER SPECIFICATIONS NOT COVERED IN THESE DRAWINGS ARE BY OTHERS.

RETENTION OF OTHER CONSULTANTS SUCH AS AN ARCHITECT, M.E.P. ENGINEERS, OR SECURITY CONSULTANT, ARE THE RESPONSIBILITY OF THE OWNER AND/OR GENERAL CONTRACTOR.

3. HENRY SCHEIN, INC. RESPONSIBILITIES

HENRY SCHEIN, INC. WILL ISSUE DETAILED DRAWINGS SHOWING CRITICAL LOCATIONS & REQUIREMENTS OF ALL DENTAL-SPECIFIC EQUIPMENT, THE E.S. WILL BE AVAILABLE FOR PERIODIC FIELD VISITS. VISITS WILL BE LIMITED TO A PRE-CONSTRUCTION ON-SITE MEETING, LAYOUT CHECKS AND INSTRUCTIONS TO THE VARIOUS TRADES IN THE CRITICAL ASPECTS OF THE WORK PERTAINING TO DENTAL AND ALLIED EQUIPMENT. ALL REQUESTS FOR FIELD VISITS SHALL ALLOW REASONABLE ADVANCED NOTICE. HENRY SCHEIN, INC. AND ITS REPRESENTATIVES WILL NOT ASSUME ANY RESPONSIBILITIES FOR DEVIATIONS FROM THESE DRAWINGS WITHOUT PRIOR WRITTEN CONSENT.

PRIOR TO CONSTRUCTION, THE E.S. WILL VERIFY THE SITE DIMENSIONS OF THE SPACE PRIOR TO ENSURE THEY COINCIDE WITH THE DETAILED DRAWINGS. DURING CONSTRUCTION, THE E.S. WILL CHECK THE JOBSITE PERIODICALLY AS REQUIRED. THE E.S. WILL BE AVAILABLE TO ASSIST THE CONTRACTOR(S)AND THE OWNER IN THE INTERPRETATION OF THESE DRAWINGS AND SPECIFICATIONS. PRIOR TO ENCLOSING WALLS, THE GENERAL CONTRACTOR AND/OR THE FRAMING SUBCONTRACTOR IS REQUIRED TO COORDINATE WITH THE E.S. AND THE HENRY SCHEIN INSTALLATION TECHNICIAN. THIS INSPECTION IS CRITICAL TO ENSURE THAT THE WALL AND/OR CEILING SUPPORTS FOR DENTAL EQUIPMENT WILL MATCH WITH ANY CHANGES THAT MAY HAVE OCCURRED WITH THE OWNER'S EQUIPMENT ORDER. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO HAVE PLUMBING, ELECTRICAL, SUPPORT BACKING, AND LEAD INSTALLATION APPROVED BY MUNICIPAL INSPECTORS BEFORE POURING SLABS, ENCLOSING PARTITIONS AND CEILING.

HENRY SCHEIN WILL NOT BE RESPONSIBLE FOR ANY UNFORESEEN CONDITIONS ARISING OUT OF, OR DURING THE COURSE OF, CONSTRUCTION NOR FOR ANY DEVIATIONS FROM DRAWINGS AND/OR SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT.

EQUIPMENT INSTALLATION

A PRE-CONSTRUCTION MEETING IS REQUIRED WITH THE GENERAL CONTRACTOR, PLUMBER, ELECTRICIAN, CABINET MAKER, AND THE E.S. ALL TEMPLATES CRITICAL TO EQUIPMENT INSTALLATION WILL BE DISTRIBUTED AT THIS MEETING.

THE E.S. WILL INSPECT PREMISES PRIOR TO THE INSTALLATION OF ITS EQUIPMENT AT WHICH TIME ALL FINISHES (CEILINGS, FLOORING, AND PAINTING) AND MECHANICAL WORK MUST BE COMPLETED. RESPONSIBILITIES FOR THE INSTALLATION AND/OR HOOKUP OF DENTAL EQUIPMENT WILL BE DEFINED IN THE SPECIFICATIONS FOR EACH TRADE. HENRY SCHEIN DENTAL REQUIRES THAT ALL APPLICABLE TRADES BE REPRESENTED AT THE TIME OF INSTALLATION.

4. GENERAL CONTRACTOR (G.C.) - RESPONSIBILITIES

ALL ITEMS LISTED OR NOTED HEREIN ARE FOR GUIDANCE ONLY AND DO NOT NECESSARILY CONSTITUTE THE ENTIRE EXTENT OF THE WORK TO BE CARRIED OUT UNDER THE CONTRACT. THE GENERAL CONTRACTOR IS RESPONSIBLE TO DEFINE AND PROVIDE ALL THE WORK REQUIRED TO COMPLETE THIS PROJECT TO THE TRUE INTENT OF THE CONTRACT WHETHER OR NOT IT IS SPECIFICALLY SHOWN OR SPECIFIED. WHERE THESE DOCUMENTS DO NOT PROVIDE ALL THE INFORMATION NECESSARY FOR THE COMPLETE INSTALLATION OF ANY ITEM, THEN THE MANUFACTURER'S INSTRUCTIONS FOR THE ITEM SHALL BE STRICTLY FOLLOWED.

THE GENERAL CONTRACTOR SHALL, SUPPLY AND INSTALL ALL ITEMS, ARTICLES, MATERIALS, INCLUDE ALL LABOR, EQUIPMENT AND TOOLS NECESSARY TO COMPLETE THIS PROJECT AND ALL SYSTEMS SHOWN. TEST AND VERIFY ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT AND INSTRUCT THE OWNER OR OWNER'S AGENT IN THE OPERATION OF THE EQUIPMENT.

THE G.C. SHALL THOROUGHLY FAMILIARIZE HIM/HERSELF WITH THE DRAWINGS, SPECIFICATIONS, AND CONDITIONS COVERING THIS JOB. THE G.C. SHALL ADVISE THE OWNER AND THE E.S. OF ANY CONFLICT BETWEEN THESE DRAWINGS AND THE FIELD CONDITIONS BEFORE PROCEEDING WITH THE WORK.

THE G.C. SHALL COMPLY WITH ALL STATE AND MUNICIPAL LAWS, ORDINANCES, RULES, AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION. ALL WORK MUST MEET OR EXCEED THE CURRENT BUILDING CODE UNDER THE JURISDICTION FOR WHICH THIS PROJECT IS LOCATED. THE G.C. SHALL FILE ALL NECESSARY APPLICATIONS AND OBTAIN AND PAY FOR ALL PERMITS, AND CERTIFICATES OF APPROVAL PERTAINING TO THE CONSTRUCTION OF THE PREMISES, INCLUDING THE FINAL INSPECTION FOR OCCUPANCY PERMIT, UNLESS OTHERWISE STATED. PERMITS OBTAINED SHALL INCLUDE THE CONNECTIONS TO ALL DENTAL EQUIPMENT AND FIXTURES WHICH ARE TO BE COMPLETED BY THE GENERAL CONTRACTOR. HVAC, SPRINKLER DRAWINGS, CORRESPONDING SPECIFICATIONS OR ANY OTHER DRAWINGS AND SPECIFICATIONS THAT MAY BE REQUIRED FOR LICENSES AND PERMITS ARE TO BE PROVIDED BY OTHERS. HENRY SCHEIN INC. WILL NOT PROVIDE OR PAY FOR THESE SERVICES OR ANY OTHER DRAWINGS AND SPECIFICATIONS THAT MAY BE REQUIRED FOR LICENSES AND PERMITS.

ALL MEASUREMENTS SHALL BE CHECKED AT THE JOB SITE. THE GENERAL CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR THE ACCURACY OF FIELD MEASUREMENTS AND CONDITIONS. THEY ARE ALSO RESPONSIBLE FOR THE PROPER MODIFICATIONS TO ANY EXISTING, OR PREVIOUSLY INSTALLED WORK. WRITTEN APPROVAL MUST BE OBTAINED FROM THE E.S. BEFORE ANY CHANGES AND/OR DEVIATIONS FROM DRAWINGS AND SPECIFICATIONS ARE MADE.

THE G.C. SHALL ASSUME FULL RESPONSIBILITY FOR THE EXECUTION OF HIS/HER WORK AND FOR ANY CHANGES AND/OR DEVIATIONS FROM DRAWINGS OR SPECIFICATIONS MADE WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER AND/OR THE E.S.. THE COST OF CORRECTIONS RESULTING FROM CHANGES AND/OR DEVIATIONS SHALL BE BORNE BY THE GENERAL CONTRACTOR.

A COMPLETE SET OF UP-TO-DATE DRAWINGS MUST BE KEPT AT THE JOB SITE AT ALL TIMES AND ANY CHANGES MUST BE NOTED THEREON AND INITIALED.

THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND THE OWNER'S AGENT FROM AND AGAINST ALL CLAIMS FOR DAMAGE TO PERSON AND/OR PROPERTY SUFFERED AS A RESULT OF THE PERFORMANCE OF WORK, WHETHER OR NOT, CAUSED BY NEGLIGENCE, AND PAY ANY EXPENSES (INCLUDING, WITHOUT LIMITATIONS, ATTORNEY'S FEES, AND DISBURSEMENTS) INCURRED IN THE CONNECTION THEREWITH.

OTHER REQUIREMENTS

THE G.C. SHALL PARTICIPATE AT JOB COORDINATION MEETINGS WITH THE HENRY SCHEIN REPRESENTATIVE AND ENSURE ATTENDANCE OF THE APPROPRIATE TRADES.

ALL TRADES SHALL DO THEIR OWN CUTTING. THE GENERAL CONTRACTOR SHALL DO ALL PATCHING TO CONFORM TO MATERIAL, TEXTURE, AND SURFACE ALIGNMENT WITH THE ADJOINING SURFACE AND FINAL TOUCH UP OF ALL FINISHED SURFACES.

THE GENERAL CONTRACTOR SHALL ENSURE THE PROTECTION OF ALL EQUIPMENT FURNISHED UNDER HIS/HER CONTRACT AND BY OTHERS.

THE G.C. SHALL REVIEW ALL CUSTOM CABINETRY, SUCH AT THE RECEPTION DESK, LABORATORY, AND STERILIZATION, WITH THE E.S. FOR ANY DENTAL EQUIPMENT INCOPRORATION.
THE G.C. SHALL REMOVE ANY RUBBISH FROM THE CONSTRUCTION SITE AND ENSURE THAT ALL PUBLIC SPACES ARE FREE OF CONSTRUCTION MATERIALS AND DEBRIS THROUGHOUT THE DURATION OF THE CONTRACT. THE G.C. IS RESPONSIBLE FOR THE TOTAL CLEAN UP OF THE JOB SITE UPON COMPLETION OF THEIR WORK.

THE GENERAL CONTRACTOR SHALL ISSUE A WRITTEN ONE-YEAR WARRANTY CERTIFICATE ON ALL WORKMANSHIP AND MATERIALS FROM THE DATE OF OCCUPANCY, UNLESS NOTED OTHERWISE IN THE CONSTRUCTION AGREEMENT BETWEEN THE OWNER AND THE G.C.. THIS CERTIFICATE SHALL BIND THE GENERAL CONTRACTOR TO PROMPTLY CORRECT, REPAIR, OR REPLACE, ANY DEFECTIVE EQUIPMENT OR WORKMANSHIP THAT WAS THE RESPONSIBILITY OF THE G.C., WITHOUT COST TO THE OWNER.

5. SEPARATE CONTRACTS BY OWNER

THE OWNER RESERVES THE RIGHT TO PERFORM WORK RELATED TO THE PROJECT WITH HIS/HER OWN FORCES, AND TO AWARD SEPARATE CONTRACTS IN CONNECTION WITH OTHER PORTIONS OF THE PROJECT OR ON OTHER WORK ON THE SITE UNDER THESE OR SIMILAR CONDITIONS OF CONTRACT. IF THE GENERAL CONTRACTOR CLAIMS THAT DELAY OR ADDITIONAL COST IS INVOLVED BECAUSE OF SUCH ACTION BY THE OWNER, THE G.C. MUST ENSURE THAT THEIR CLAIM WAS ORIGINALLY PART OF THEIR CONTRACT AGREEMENT.

THE G.C. SHALL AFFORD THE OWNER AND SEPARATE CONTRACTORS REASONABLE OPPORTUNITY FOR THE INTRODUCTION AND STORAGE OF THEIR MATERIALS AND EQUIPMENT AND THE EXECUTION OF THEIR WORK. THE G.C. SHALL CONNECT AND COORDINATE THEIR WORK WITH OTHERS AS REQUIRED BY THE CONTRACT DOCUMENTS. ANY COSTS CAUSED BY DEFECTIVE AND/OR ILL-TIME WORK SHALL BE BORNE BY THE PARTY RESPONSIBLE.

SEE OWNER OR OWNER'S AGENT FOR NON-DENTAL ITEMS AND AREAS NOT DETAILED IN THESE DRAWINGS (SUCH AS RECEPTION, BUSINESS AREA, OFFICES, STAFF LOUNGE, STORAGE ROOMS, OFFICE-WIDE SOUND SYSTEMS, CONTROLS, ETC.).

GENERAL NOTES

1. THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PRODUCED FOR THIS SPECIFIC PROJECT ONLY, AND SHALL REMAIN THE EXCLUSIVE PROPERTY OF HENRY SCHEIN INC. THESE DRAWINGS AND SPECIFICATIONS MAY NOT BE REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT EXPRESSED WRITTEN CONSENT AND FULL PAYMENT OF ANY ASSOCIATED FEES TO HENRY SCHEIN, INC.
2. ALL COMMUNICATIONS AND COORDINATION WITH TRADES SHALL BE THE RESPONSIBILITY OF THE G.C. UNLESS STATED OTHERWISE IN THE CONTRACT AGREEMENT.
3. THE G.C. MUST SIGN THIS SHEET STIPULATING THAT HE/SHE UNDERSTANDS AND WILL COMPLY WITH ALL SPECIFICATIONS BEFORE THE WORK WILL START. A SIGNED COPY OF THE PLANS ARE TO BE RETURNED TO THE OWNER AND HENRY SCHEIN DENTAL.
4. IT IS THE RESPONSIBILITY OF A SUBCONTRACTOR TO READ AND UNDERSTAND ALL NOTES AND ILLUSTRATIONS PERTAINING TO THEIR TRADE AND HOW THEIR WORK AFFECTS OTHER TRADES.
5. THE SUPPLY AND INSTALL OF THE CABINETS AND COUNTERTOPS, OTHER THAN THOSE SPECIFIED AND/OR CONTRACTED BY HENRY SCHEIN, INC., IS THE RESPONSIBILITY OF THE G.C..
6. THE OWNER SHALL MAKE ARRANGEMENTS FOR INSTALLATION OF NON-DENTAL SYSTEMS UNDER A SEPARATE CONTRACT BEFORE WALLS ARE ENCLOSED.
7. ROUGH-IN AND FINISH WORK FOR DENTAL EQUIPMENT IS TO BE ACCORDING TO TEMPLATES FURNISHED BY THE MANUFACTURERS OF EQUIPMENT BEING INSTALLED. THE E.S. WILL POSITION THE TEMPLATES IN THEIR PROPER LOCATIONS, AT WHICH TIME ALL SPECIFICATIONS ON THE PLANS WILL BE EXPLAINED TO THE GENERAL CONTRACTOR OR SUBCONTRACTOR(S). ALL SPECIFIED SIZES OF PIPES, TUBING, FITTINGS, ETC., AS WELL AS PROPER HEIGHTS MARKED, MUST BE STRICTLY FOLLOWED. ANY DEVIATIONS ON SIZES OR HEIGHTS OF PIPES, TUBING, AND/OR FITTINGS MUST BE CORRECTED BEFORE THE EQUIPMENT CAN BE INSTALLED, AND ANY SUCH EXTRA EXPENSE WILL BE THE RESPONSIBILITY OF G.C. AND/OR THE SUBTRADE.
8. THE G.C. SHALL SEAL ANY/ALL FLOOR AND FIRE PENETRATIONS MADE BY HENRY SCHEIN INSTALLERS AT THE FINISHING STAGES WITH THE APPROPRIATE MATERIAL.
9. THE G.C. SHALL PROVIDE DOOR THRESHOLDS & DOOR SEALS NECESSARY FOR DENTAL EQUIPMENT SOUND ATTENUATION.
10. THE GENERAL CONTRACTOR SHALL SUPPLY FASTENERS, ANCHORS, ACCESSORIES AND ADHESIVES REQUIRED FOR FABRICATION AND ERECTION OF THE WORK. KEEP EXPOSED FASTENERS TO A MINIMUM, NEATLY LAID OUT AND EVENLY SPACED. FLOOR FINISHES ARE TO BE CONTINUOUS UNDERNEATH MILLWORK AND EQUIPMENT. TRANSITIONS AND VARIATIONS BETWEEN FLOOR FINISHES TO BE SMOOTH AND LEVEL TO REDUCE IN JURY WITH USE. PROVIDE 3/4" (19MM) PLYWOOD SUPPORT BETWEEN STUDS FOR ALL WALLS TO SUPPORT UPPER CABINETRY AND SHELVING, INCLUDING RECEPTION AND ALL TREATMENT ROOMS. WOOD SUPPORTS ABOVE THE CEILING MAY NEED TO BE FIRE RATED, FOLLOW LOCAL CODES.
11. PRIOR TO POURING THE CONCRETE FLOOR AND ENCLOSING ALL WALLS, THE GENERAL CONTRACTOR SHALL CONTACT THE E.S. AND INSTALLATION TECHNICIAN FOR FINAL INSPECTION OF PLUMBING, ELECTRICAL AND WOOD SUPPORTS.
12. ALL LABOR AND MATERIAL NECESSARY FOR CHANGES IN EXISTING PLUMBING, CARPENTRY, AND ELECTRICAL WORK MUST BE DONE AND SUPPLIED BY THE GENERAL CONTRACTOR AND IS NOT INCLUDED IN THE COST OF EQUIPMENT.
13. ALL PLUMBING AND ELECTRICAL LINES ARE TO BE CONCEALED UNLESS OTHERWISE SPECIFIED.
14. THE ELECTRICAL PANEL SHALL BE CONVENIENT AND ACCESSIBLE, MEET ELECTRICAL CODE REQUIREMENTS, AND BE LOCATED IN THE SUITE. LOCATION TO BE APPROVED BY THE OWNER AND LANDLORD. THE G.C. SHALL REVIEW THE LOCATION WITH THE E.S., AS WELL AS THE LOCATIONS OF THE TELEPHONE SYSTEM AND SERVER.
15. HENRY SCHEIN, INC. SHALL NOT BE HELD RESPONSIBLE FOR SUPPLYING UL/ULC OR CSA APPROVAL CERTIFICATES. THE G.C. MAY CONTACT THE MANUFACTURER IF REQUIRED.
16. THE ELECTRICAL SUBCONTRACTOR SHALL PROVIDE SPECIFIED TERMINATION BOXES, RECEPTACLES AND ANY HARDWIRE CIRCUITS LOCATED IN CUSTOM DENTAL CABINETRY. THEY ARE ALSO RESPONSIBLE FOR SUPPLYING GFCI RECEPTACLES WHERE REQUIRED BY CODE.
17. THE G.C. IS TO MAKE ARRANGEMENTS FOR TEMPORARY POWER AND/OR DISCONNECTION OF ELECTRICAL AND MECHANICAL SYSTEMS IF AND WHEN REQUIRED.
18. IF MULTIMEDIA SYSTEMS, SUCH AS ENTERTAINMENT TVS, MONITORS, OR NETWORK COMPUTER SYSTEMS, OR SECURITY SYSTEMS ARE SUPPLIED AND INSTALLED BY HENRY SCHEIN, INC., THEN THESE SYSTEMS WILL BE THEIR RESPONSIBILITY. WHEN THESE SYSTEMS, OR OTHER SYSTEMS, ARE NOT PROVIDED BY HENRY SCHEIN, INC., HENRY SCHEIN, INC. SHALL NOT BE HELD RESPONSIBLE FOR THEIR INSTALLATION OR COMMISSIONING.
19. HENRY SCHEIN, INC. WILL ASSEMBLE EQUIPMENT AND, WHERE SPECIFIED WITHIN THESE DRAWINGS, CONNECT TO UTILITIES PROVIDED. SUCH CONNECTIONS BY OTHER TRADES ARE SUPPLIED CORRECTLY AND COMPLETELY (WITH PROPER SHUT-OFF VALVES/FITTINGS/ OUTLETS/TERMINATIONS). VERIFY ALL CONTRACTOR RESPONSIBILITIES FOR FINAL CONNECTIONS WITH THESE DRAWINGS AND HENRY SCHEIN DENTAL E.S., DIRECT ANY QUESTIONS REGARDING CONTRACTOR RESPONSIBILITIES TO HENRY SCHEIN DENTAL E.S. PRIOR TO CONSTRUCTION.
20. WHEN APPLICABLE, THE G.C. SHALL BE RESPONSIBLE FOR PROCURING A PLUMBING SUB-CONTRACTOR THAT IS CERTIFIED TO INSTALL NITROUS OXIDE–OXYGEN CONSCIOUS SEDATION SYSTEMS AS DETAILED IN THESE PLANS. HENRY SCHEIN DENTAL IS A NITROUS OXIDE SYSTEM END USER COMPONENT SUPPLIER AND DOES NOT MANUFACTURE OR DESIGN ANY OF THESE SYSTEMS. ANY SYSTEM DESIGN SHOWN ON THESE PLANS BY HENRY SCHEIN DENTAL IS TO BE USED AS AN ILLUSTRATION ONLY FOR THE PURPOSE OF LOCATING END USER OUTLET STATIONS, CYLINDER ROOM MANIFOLD, AND ALARM PANEL. THE FINAL TRUNK SYSTEM INSTALLATION SHALL ADHERE TO THE MECHANICAL ENGINEERING DRAWINGS PREPARED BY A THIRD PARTY.
21. PLUMBING SUBCONTRACTOR SHALL PROVIDE GAS CERTIFICATION CREDENTIALS IN ACCORDANCE WITH ANY REQUESTS BY THE OWNER, GENERAL CONTRACTOR, BUILDING DEPARTMENT, OR HENRY SCHEIN DENTAL PRIOR TO COMMENCING WORK IF ANY TYPE OF NITROUS–OXIDE SYSTEM IS BEING INCORPORATED INTO THE PROJECT.

PRIOR TO POURING THE CONCRETE FLOOR AND ENCLOSING ALL WALLS AND CEILINGS, THE GENERAL CONTRACTOR SHALL CONTACT THE E.S. AND INSTALLATION TECHNICIAN FOR FINAL INSPECTION OF PLUMBING, ELECTRICAL AND WOOD SUPPORTS.

EQUIPMENT SPECIALIST (E.S.): ANDREW COTLLE **TELEPHONE:** 801-842-4450

INSTALLATION TECHNICIAN: _____ **TELEPHONE:** _____

SHEET INDEX

SHEET	TITLE
SCV	COVER SHEET
SA.0	DENTAL EQUIPMENT FIRST FLOOR PLAN
SA.1	DENTAL EQUIPMENT 2ND FLOOR PLAN
SP.1	DENTAL PLUMBING SPECIFICATIONS
SE.1	DENTAL ELECTRICAL SPECIFICATIONS
SED.1	DENTAL EQUIPMENT DETAILS
SED.2	DENTAL EQUIPMENT DETAILS

HENRY SCHEIN®
INTEGRATED DESIGN STUDIO
10920 W LINCOLN AVE, WEST ALLIS, WI 53227
henryscheinintegrateddesign.com

PROJECT: **DR. TANNER GODFREY**
LOCATION: UTAH

HENRY SCHEIN REP: ANDREW COTLLE
REGION: UTAH
PHONE #: 801-842-4450

-IMPORTANT NOTE-
THIS DOCUMENT HAS BEEN PREPARED AS AN INSTRUMENT OF PROFESSIONAL SERVICE AND **IS NOT AN ARCHITECTURAL PLAN.** THE IDEAS/ DESIGN INCLUDED HEREIN ARE THE SOLE PROPERTY OF HENRY SCHEIN, INC. AND ARE PROJECTED UNDER COPYRIGHT. THESE PLANS MAY NOT BE USED OR REPRODUCED WITHOUT EXPRESSED WRITTEN CONSENT OF HENRY SCHEIN, INC. AND FULL PAYMENT OF ANY ASSOCIATED DESIGN FEES. **ALL DIMENSIONS ARE SUBJECT TO JOB-SITE VERIFICATION.**

PROJECT NUMBER: 24-1751
PROJECT START DATE: 9/4/2023
FINALS START DATE: 9/4/2023
DRAWN BY: ARCH
FINALS BY: LMW
CHECKED BY: TS

REVISIONS:

--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---

INT.SQ.FT.= PER ARCH
SCALE: N/A
SHT. SIZE: 24 x 36

COVER SHEET

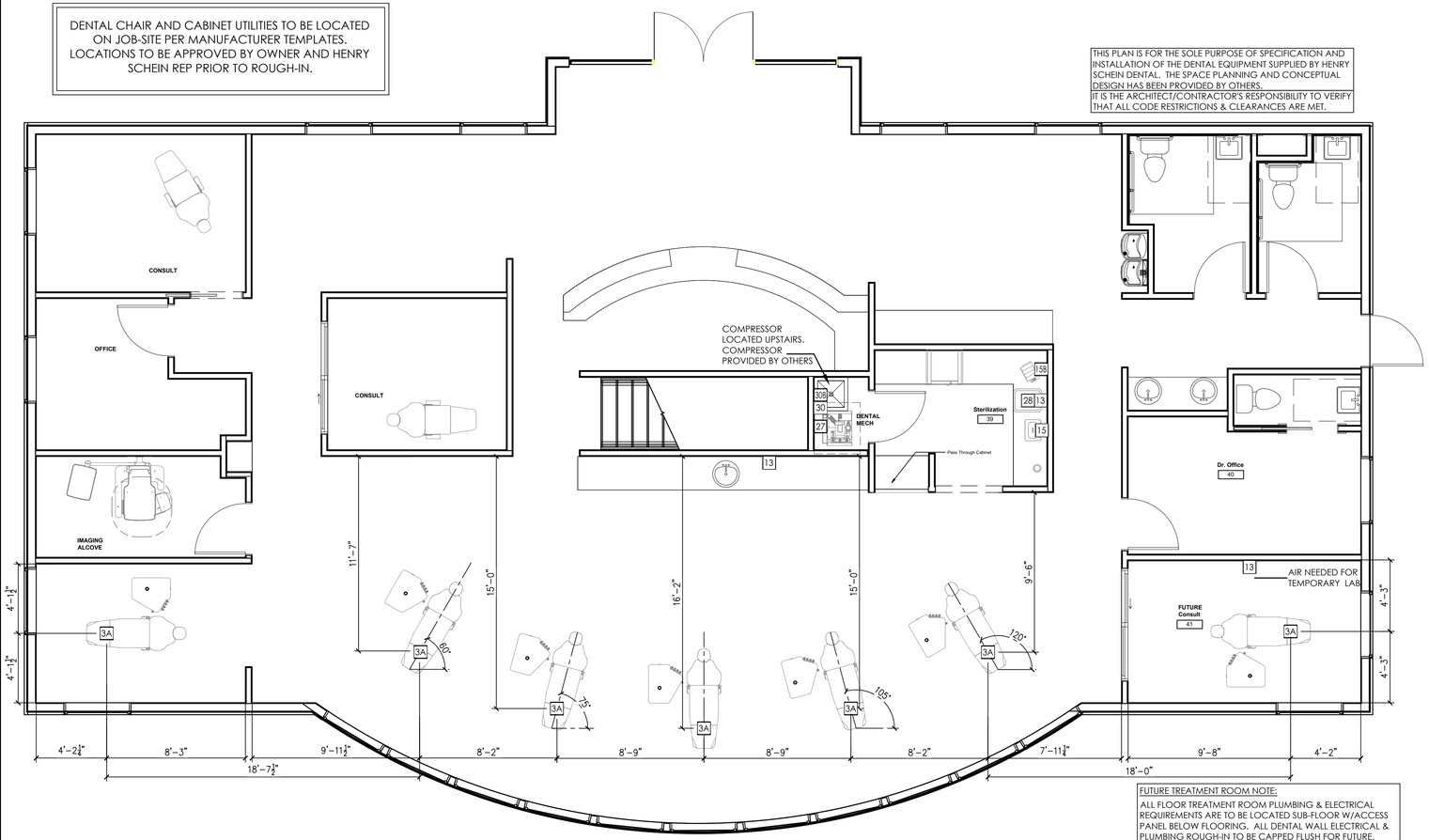
SCV

P:_ALL REGIONS\UT Utah\Godfrey\GODFREY-1-

© 2024 by HENRY SCHEIN, INC.

DENTAL CHAIR AND CABINET UTILITIES TO BE LOCATED ON JOB-SITE PER MANUFACTURER TEMPLATES. LOCATIONS TO BE APPROVED BY OWNER AND HENRY SCHEIN REP PRIOR TO ROUGH-IN.

THIS PLAN IS FOR THE SOLE PURPOSE OF SPECIFICATION AND INSTALLATION OF THE DENTAL EQUIPMENT SUPPLIED BY HENRY SCHEIN DENTAL. THE SPACE PLANNING AND CONCEPTUAL DESIGN HAS BEEN PROVIDED BY OTHERS.
IT IS THE ARCHITECT/CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT ALL CODE RESTRICTIONS & CLEARANCES ARE MET.



FUTURE TREATMENT ROOM NOTE:
ALL FLOOR TREATMENT ROOM PLUMBING & ELECTRICAL REQUIREMENTS ARE TO BE LOCATED SUB-FLOOR W/ACCESS PANEL BELOW FLOORING. ALL DENTAL WALL ELECTRICAL & PLUMBING ROUGH-IN TO BE CAPPED FLUSH FOR FUTURE.

PLUMBING NOTES

1. THIS SPECIFICATION SHEET IS INTENDED AS A GUIDE FOR TRADESMEN. THE FLOOR PLANS ENCLOSED HEREIN ARE SUGGESTIONS FOR THE PLACEMENT OF DENTAL EQUIPMENT. THEY ARE NOT INTENDED FOR CONSTRUCTION.

2. EXACT EQUIPMENT LOCATIONS MUST BE JOB SITE VERIFIED BY THE HENRY SCHEIN DENTAL EQUIPMENT SPECIALIST.

3. FOLLOW MANUFACTURER'S TEMPLATES FOR EXACT REQUIREMENTS FOR ANY EQUIPMENT SUPPLIED BY HENRY SCHEIN DENTAL. CONSULT WITH HENRY SCHEIN DENTAL REP FOR ADDITIONAL INFORMATION.

4. DENTAL AIR IS SUPPLIED THROUGH USE OF A DENTAL AIR COMPRESSOR/SUPPLY SYSTEM AND IS PERMITTED TO BE USED AS A SUPPORT GAS FOR DRIVING DENTAL TOOLS AND SUPPLYING AIR-DRIVEN EQUIPMENT AS DESCRIBED WITHIN NFPA 99. DENTAL AIR IS NOT A MEDICAL GAS.

5. WATER PRESSURE MUST NOT EXCEED 50 PSI AT ALL DENTAL UNITS.

6. ALL PLUMBING MUST CONFORM TO LOCAL PREVAILING CODES.

7. REFER TO ARCHITECT'S DRAWINGS FOR PLUMBING REQUIREMENTS IN ALL AREAS NOT INDICATED ON THIS PLAN.

ALL DIMENSIONS NOTED ON PLAN ARE TO THE CENTERLINE OF PLUMBING OR UTILITY CENTER (UNLESS SHOWN OTHERWISE)

SEE SHEETS SED.1 & SED.2 FOR DENTAL EQUIPMENT DETAILS

VACUUM NOTES

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

IT IS HIGHLY RECOMMENDED THAT VACUUM LINES RUN UNDERNEATH DENTAL EQUIPMENT BY MEANS OF TRENCHING/CORING (CONCRETE SLAB) OR SUB-FLOOR (BASEMENT/CRAWL SPACE). ALL LINES ARE TO BE DESIGNED WITH PVC PIPING UNLESS DICTATED BY LOCAL CODES TO USE COPPER OR CAST IRON.

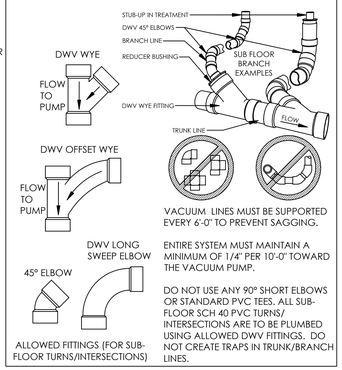
1. STUB-UP
TERMINATE VACUUM TRUNK LINE IN MECHANICAL ROOM. PLUMBER TO PROVIDE FPT ADAPTOR ON END OF STUB-OUT FROM FLOOR OR WALL. SIZE PER MANUFACTURER SPECIFICATIONS. SEE DETAILS (THIS SET) & MANUFACTURER TEMPLATES PROVIDED BY HENRY SCHEIN EQUIPMENT REP. IN THE CASE OF DUAL TRUNK LINE SYSTEM, PROVIDE ENOUGH SPACE BETWEEN STUB-UPS TO INSTALL BYPASS OR TANDEM COMPONENTS.

2. TRUNK LINE(S)
DO NOT PIPE TRUNK LINE IN A SERIES MANNER FROM J-BOX TO J-BOX. A CONTINUOUS TRUNK LINE MUST BE MAINTAINED FROM THE PUMP TO THE FURTHEST J-BOX USING BRANCH LINES OFF OF THE TRUNK LINE TO PICK UP EACH VACUUM OUTLET. TRUNK LINE MAY FOLLOW DRAIN LINE TRENCHES WITHIN REASON.

3. BRANCH LINE(S)
BRANCH LINES ARE TO HAVE "SWEEPING" 90 DEGREE TURNS TO AVOID VACUUM LOSS. "WYE" FITTINGS SHOULD BE USED TO JOIN BRANCH LINES TO THE TRUNK LINE.

4. PLUMBING AROUND FOOTINGS:
IF VACUUM LINES ENCROACH ON EITHER A WALL OR COLUMN FOOTING, USE 45 DEGREE ELBOWS TO PIPE AROUND FOOTING TO FINAL LOCATION. DO NOT PIPE UNDER FOOTINGS.

VACUUM LINE GUIDELINES



VACUUM LINES MUST BE SUPPORTED EVERY 6'-0" TO PREVENT SAGGING.

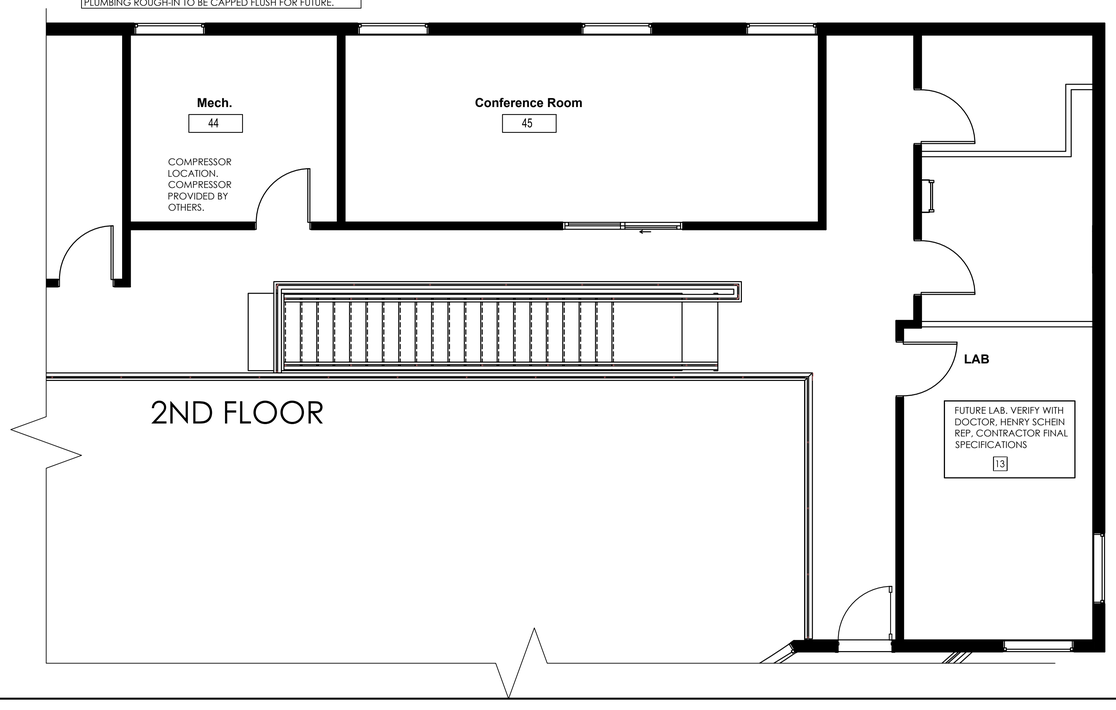
ENTIRE SYSTEM MUST MAINTAIN A MINIMUM OF 1/4" PER 10'-0" TOWARD THE VACUUM PUMP.

DO NOT USE ANY 90° SHORT ELBOWS OR STANDARD PVC TEES. ALL SUB-FLOOR SCH 40 PVC TURNS/ INTERSECTIONS ARE TO BE PLUMBED USING ALLOWED DWV FITTINGS. DO NOT CREATE TRAPS IN TRUNK/BRANCH LINES.

PLUMBING SPECIFICATIONS

PLEASE NOTE: A LICENSED PLUMBING CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL REQUIRED UTILITIES. ALL REQUIREMENTS TO BE VERIFIED BY MANUFACTURER'S SPEC SHEETS PROVIDED BY HENRY SCHEIN DENTAL EQUIPMENT SPECIALIST. MANUFACTURER'S SPECS SUPERSEDE ANY AND ALL INFORMATION CONTAINED HEREIN.

QUANTITY	SPEC. NUMBER	DESCRIPTION	UTILITIES: COLD WATER	HOT WATER	DRAIN	COMPRESSED AIR	NATURAL GAS	DENTAL VACUUM	NITROUS OXIDE	OXYGEN	NITROGEN	MEDICAL VACUUM	WAGD	VENT	DETAIL
7	3A	UTILITY CENTER - SELF-CONTAINED WATER. SEE DETAIL(S). ALL UTILITIES MUST CONFORM TO PREVAILING LOCAL CODES.													3A
4	13	COMPRESSED AIR LINE AND VALVE – ½" AIR LINE FROM COMPRESSOR (25) BY PLUMBER. TERMINATE WITH A 3/8" ANGLE VALVE.				•									13
1	15	ULTRASONIC CLEANER - SUPPLIED AND INSTALLED BY HENRY SCHEIN DENTAL. UTILITIES BY CONTRACTOR(S).			•										15
1	15B	HANDPIECE MAINTENANCE SYSTEM - CONTRACTOR(S) TO PROVIDE REQ'D UTILITIES. 1/2" AIR LINE WITH 1/4" ANGLE VALVE (ABOVE COUNTERTOP). SYSTEM SUPPLIED AND INSTALLED BY HENRY SCHEIN DENTAL.				•									15B
1	27	VACUUM PUMP (DRY) - SUPPLIED BY HENRY SCHEIN DENTAL, INSTALLED BY CONTRACTOR(S). VERIFY TRUNK & BRANCH LINE SIZES WITH MFR RECOMMENDATIONS. USE SCH 40 PVC WHERE PERMITTED BY CODE. PLUMBER TO EXHAUST PUMP TO OUTSIDE. BUCK BOOST TRANSFORMER SUPPLIED AND INSTALLED BY ELECTRICIAN (IF REQ'D). DRAIN BY PLUMBER. FINAL CONNECTIONS BY CONTRACTOR(S). PLUMBER TO PROVIDE WATER LINE WITH HOSE BIB NEAR UNIT. SEE DETAIL.	•		•			•						•	27
1	28	VACUUM OUTLET - PLUMBER TO PROVIDE A 3/4" BRANCH LINE FROM VACUUM TRUNK LINE TO LOCATION(S) SHOWN. TERMINATE WITH A 1/2" FPT FITTING AT FINISH. VERIFY TERMINATION, HEIGHT AND LOCATION WITH HENRY SCHEIN DENTAL EQUIPMENT SPECIALIST.						•							28
1	30	REMOTE WATER CONTROL VALVE - SUPPLIED BY HENRY SCHEIN DENTAL, INSTALLED BY PLUMBER ON COLD WATER SUPPLY LINE.	•												30
1	30B	COLD WATER LINE - SUPPLIED & INSTALLED BY PLUMBER. TERMINATE WITH 3/8" ANGLE VALVE.	•												



PROPOSED PLUMBING PLAN
1/4"=1'-0"

HENRY SCHEIN®
INTEGRATED DESIGN STUDIO
10920 W LINCOLN AVE, WEST ALLIS, WI 53227
henryscheinintegrateddesign.com

PROJECT: **DR. TANNER GODFREY**
LOCATION: UTAH

HENRY SCHEIN REP:
ANDREW COTLLE

REGION:
UTAH

PHONE #:
801-842-4450

-IMPORTANT NOTE-
THIS DOCUMENT HAS BEEN PREPARED AS AN INSTRUMENT OF PROFESSIONAL SERVICE AND **IS NOT AN ARCHITECTURAL PLAN.** THE IDEAS/ DESIGN INCLUDED HEREIN ARE THE SOLE PROPERTY OF HENRY SCHEIN, INC. AND ARE PROTECTED UNDER COPYRIGHT. THESE PLANS MAY NOT BE USED OR REPRODUCED WITHOUT EXPRESSED WRITTEN CONSENT OF HENRY SCHEIN, INC. AND FULL PAYMENT OF ANY ASSOCIATED DESIGN FEES.
ALL DIMENSIONS ARE SUBJECT TO JOB-SITE VERIFICATION.

PROJECT NUMBER: 24-1751
PROJECT START DATE: 9/4/2023
FINALS START DATE: 9/4/2023
DRAWN BY: ARCH
FINALS BY: LMW
CHECKED BY: TS

REVISIONS:

--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---

INT.SQ.FT.= PER ARCH
SCALE: 1/4"=1'-0"
SHT. SIZE: 24 x 36

DENTAL PLUMBING PLAN

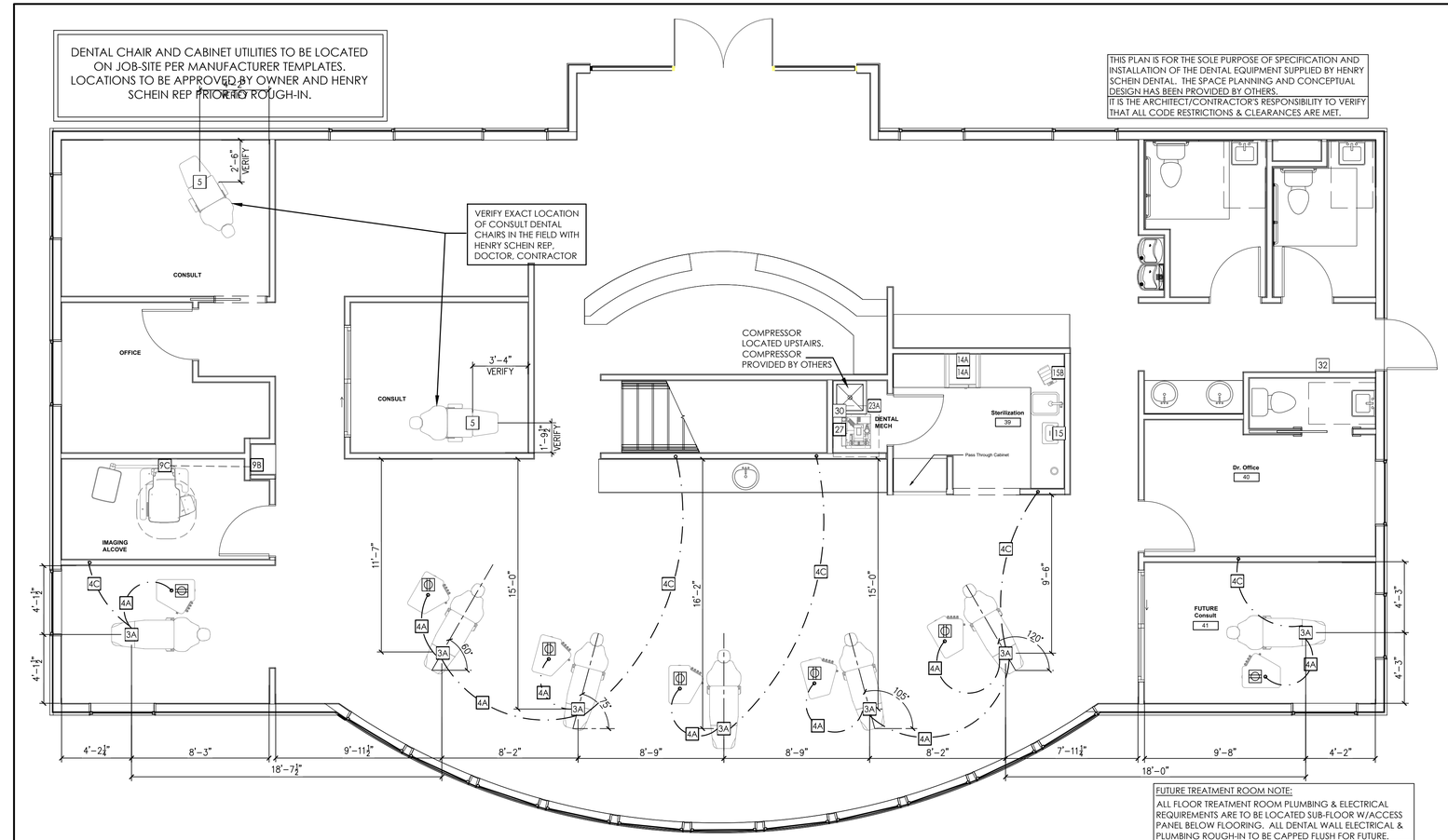
SP.1

© 2024 by HENRY SCHEIN, INC.

P:_ALL REGIONS\UT Utah\Godfrey\GODFREY-1-F

DENTAL CHAIR AND CABINET UTILITIES TO BE LOCATED ON JOB-SITE PER MANUFACTURER TEMPLATES. LOCATIONS TO BE APPROVED BY OWNER AND HENRY SCHEIN REP PRIOR TO ROUGH-IN.

THIS PLAN IS FOR THE SOLE PURPOSE OF SPECIFICATION AND INSTALLATION OF THE DENTAL EQUIPMENT SUPPLIED BY HENRY SCHEIN DENTAL. THE SPACE PLANNING AND CONCEPTUAL DESIGN HAS BEEN PROVIDED BY OTHERS.
IT IS THE ARCHITECT/CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT ALL CODE RESTRICTIONS & CLEARANCES ARE MET.



FUTURE TREATMENT ROOM NOTE:
ALL FLOOR TREATMENT ROOM PLUMBING & ELECTRICAL REQUIREMENTS ARE TO BE LOCATED SUB-FLOOR W/ACCESS PANEL BELOW FLOORING. ALL DENTAL WALL ELECTRICAL & PLUMBING ROUGH-IN TO BE CAPPED FLUSH FOR FUTURE.

ELECTRICAL SPECIFICATIONS

PLEASE NOTE: A LICENSED ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL REQUIRED UTILITIES. ALL REQUIREMENTS TO BE VERIFIED BY MANUFACTURER'S SPEC SHEETS PROVIDED BY HENRY SCHEIN DENTAL EQUIPMENT SPECIALIST. MANUFACTURER'S SPECS SUPERSEDE ANY AND ALL INFORMATION CONTAINED HEREIN.

QUANTITY	SPEC. NUMBER	DESCRIPTION	UTILITIES: POWER	DEDICATED CIRCUIT	LOW VOLTAGE CONTROL	DATA DROP	DETAIL
7	3A	UTILITY CENTER - SELF-CONTAINED WATER. SEE DETAIL(S). ALL UTILITIES MUST CONFORM TO PREVAILING LOCAL CODES.	115V				3A
9	4A	2" SUB-FLOOR CONDUIT - SUB-FLOOR CONDUIT WITH PULL-STRING SUPPLIED & INSTALLED BY ELECTRICIAN. SWEEPING 90 DEGREE BENDS ONLY. STUB-UP FLUSH WITH SUB-FLOOR AT EACH END, MARK LOCATION AT FINISH.					4A
5	4C	2" CONTINUOUS CONDUIT - CONDUIT WITH PULL-STRING SUPPLIED & INSTALLED BY ELECTRICIAN, RUN BETWEEN LOCATIONS SHOWN ON PLAN. VERIFY SIZING WITH HSD EQUIPMENT SPECIALIST. SWEEPING 90 DEGREE BENDS. SEE DETAIL FOR MORE INFORMATION.					4C
2	5	DENTAL CHAIR OUTLET - SUPPLIED & INSTALLED BY ELECTRICIAN.	115V				5
1	9B	X-RAY REMOTE EXPOSURE STATION - SUPPLIED AND INSTALLED BY HENRY SCHEIN DENTAL. ELECTRICIAN TO SUPPLY AND INSTALL PIPE CHASE WITH PULL-STRING TO (9) OR (9C) LOCATION. VERIFY SUPPLIER OF WIRING WITH HENRY SCHEIN DENTAL EQUIPMENT SPECIALIST.			•		9B
1	9C	PANORAMIC IMAGING UNIT (2D OR 3D) - SUPPLIED AND INSTALLED BY HENRY SCHEIN DENTAL. BLOCKING & ELECTRICAL BY CONTRACTOR(S). CONFIRM POWER REQUIREMENTS WITH HENRY SCHEIN DENTAL EQUIPMENT SPECIALIST.	115V & 230V	20A (X2)		•	9C
2	14A	STERILIZER (AUTOCLAVE) - SUPPLIED AND INSTALLED BY HENRY SCHEIN DENTAL. POWER BY ELECTRICIAN.	115V	20A		•	14A
1	15	ULTRASONIC CLEANER - SUPPLIED AND INSTALLED BY HENRY SCHEIN DENTAL. UTILITIES BY CONTRACTOR(S).	115V				15
1	15B	HANDPIECE MAINTENANCE SYSTEM - CONTRACTOR(S) TO PROVIDE REQ'D UTILITIES, 1/2" AIR LINE WITH 1/4" ANGLE VALVE (ABOVE COUNTERTOP). SYSTEM SUPPLIED AND INSTALLED BY HENRY SCHEIN DENTAL.	115V				15B
1	23A	EXHAUST FAN FOR DENTAL MECHANICAL CLOSET - SUPPLIED AND INSTALLED BY CONTRACTOR. A THERMOSTAT CONTROLLED FAN IS REQUIRED TO KEEP ROOM TEMPERATURE WITHIN THE EQUIPMENT MANUFACTURER'S RECOMMENDED OPERATING TEMPERATURE RANGE. FAN OUTPUT (CFM) TO BE DETERMINED BY ARCHITECT/ENGINEER. VENT TO OUTSIDE.	115V	•			
1	27	VACUUM PUMP (DRY) - SUPPLIED BY HENRY SCHEIN DENTAL, INSTALLED BY CONTRACTOR(S). VERIFY TRUNK & BRANCH LINE SIZES WITH MFR RECOMMENDATIONS. USE SCH 40 PVC WHERE PERMITTED BY CODE. PLUMBER TO EXHAUST PUMP TO OUTSIDE. BUCK BOOST TRANSFORMER SUPPLIED AND INSTALLED BY ELECTRICIAN (IF REQ'D). DRAIN BY PLUMBER. FINAL CONNECTIONS BY CONTRACTOR(S). PLUMBER TO PROVIDE WATER LINE WITH HOSE BIB NEAR UNIT. SEE DETAIL.	230V	20A	•		27
1	30	REMOTE WATER CONTROL VALVE - SUPPLIED BY HENRY SCHEIN DENTAL, INSTALLED BY PLUMBER ON COLD WATER SUPPLY LINE.	115V		•		30
1	32	MECHANICAL ROOM CONTROL PANEL - SUPPLIED BY HENRY SCHEIN DENTAL, INSTALLED BY ELECTRICIAN 60" A.F.F. ELECTRICIAN TO SUPPLY AND INSTALL 24V CONTROL WIRING FROM PANEL TO EACH COMPRESSOR, VACUUM AND/OR SOLENOID PER MFR SPECS.			•		32

ELECTRICAL NOTES

1. THIS SPECIFICATION SHEET IS INTENDED AS A GUIDE FOR TRADESMEN. THE FLOOR PLANS ENCLOSED HEREIN ARE SUGGESTIONS FOR THE PLACEMENT OF DENTAL EQUIPMENT. THEY ARE NOT INTENDED FOR CONSTRUCTION.
2. EXACT EQUIPMENT LOCATIONS MUST BE JOB SITE VERIFIED BY THE HENRY SCHEIN DENTAL EQUIPMENT SPECIALIST.
3. FOLLOW MANUFACTURER'S TEMPLATES FOR EXACT REQUIREMENTS FOR ANY EQUIPMENT SUPPLIED BY HENRY SCHEIN DENTAL. CONSULT WITH HENRY SCHEIN DENTAL REP FOR ADDITIONAL INFORMATION.
4. GFCI PROTECTION OR REDUNDANT GROUND IN DENTAL CHAIR RECEPTACLES. DENTAL UTILITY CABINETS AND ANY OTHER AREAS REQUIRED BY LOCAL CODE IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
5. ADDITIONAL CONVENIENCE OUTLETS REQUIRED ON JOBSITE ARE THE RESPONSIBILITY OF ELECTRICAL CONTRACTORS. FOLLOW LOCAL CODE RESTRICTIONS.
6. ALL CONDUIT LOCATIONS SHOULD BE VERIFIED WITH OWNER AND HENRY SCHEIN REP PRIOR TO ROUGH-IN.
7. ALL COMPUTER NETWORKING AND WORKSTATIONS MUST BE SPECIFIED BY CUSTOMER'S COMPUTER SUPPLIER. IF HENRY SCHEIN WILL BE SUPPLYING THE COMPUTERS & NETWORKING COMPONENTS, SEE SHEET SE.2 FOR THE OFFICE TECHNOLOGY PLAN.
8. CONTRACTOR TO PROVIDE AND INSTALL ALL EXIT SIGNS, EMERGENCY LIGHTING AND FIRE SUPPRESSION & DETECTION SYSTEMS AS PER ARCHITECT'S DRAWINGS AND LOCAL CODE.
9. REFER TO ARCHITECT'S DRAWINGS FOR ELECTRICAL REQUIREMENTS IN ALL AREAS NOT INDICATED ON THIS PLAN.

ALL DIMENSIONS NOTED ON PLAN ARE TO THE CENTERLINE OF RECEPTACLE OR UTILITY CENTER (UNLESS SHOWN OTHERWISE)

ELECTRICAL LEGEND

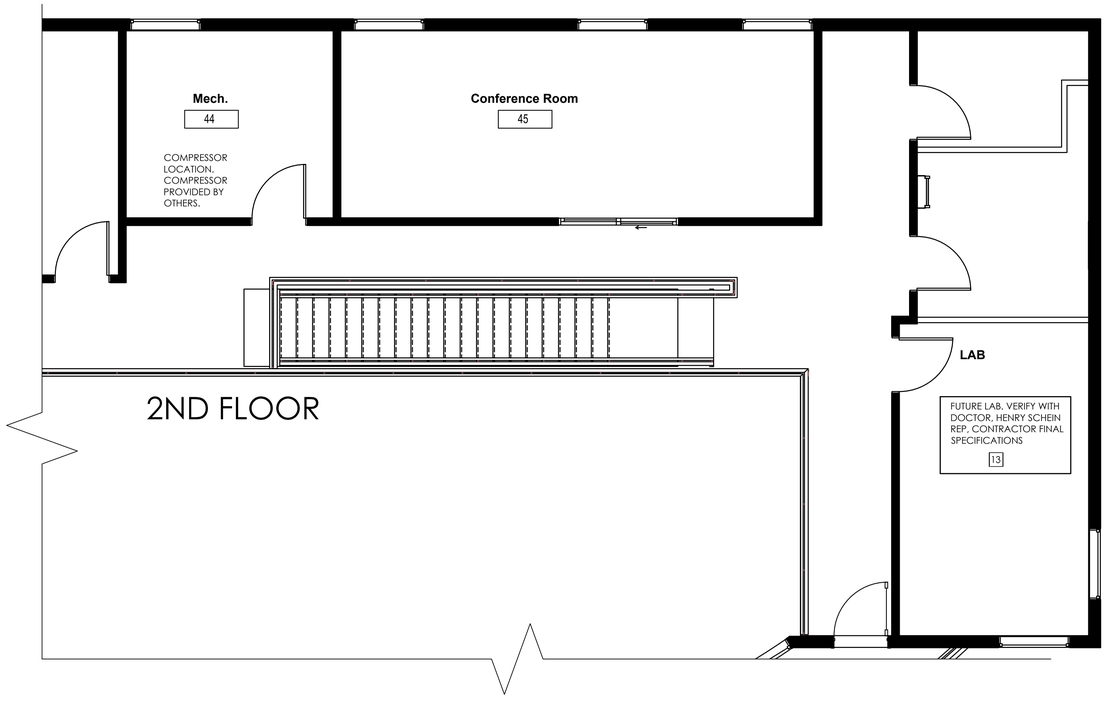
ALL HEIGHTS TO BE SPECIFIED ON-SITE UNLESS NOTED OTHERWISE

FLOOR MOUNTED DUPLEX RECEPTACLE (FLUSH)

*SPECIFICATIONS MAY INCLUDE DATA, SEE ELECTRICAL SCHEDULE THIS SHEET

SEE SHEETS SED.1 & SED.2 FOR DENTAL EQUIPMENT DETAILS

PROPOSED ELECTRICAL PLAN
1/4"=1'-0"



2ND FLOOR

HENRY SCHEIN®
INTEGRATED DESIGN STUDIO
10920 W LINCOLN AVE. WEST ALLIS, WI 53227
henryscheinintegrateddesign.com

PROJECT: **DR. TANNER GODFREY**
LOCATION: UTAH

HENRY SCHEIN REP:
ANDREW COTLLE

REGION:
UTAH

PHONE #:
801-842-4450

-IMPORTANT NOTE-
THIS DOCUMENT HAS BEEN PREPARED AS AN INSTRUMENT OF PROFESSIONAL SERVICE AND **IS NOT AN ARCHITECTURAL PLAN.** THE IDEAS/ DESIGN INCLUDED HEREIN ARE THE SOLE PROPERTY OF HENRY SCHEIN, INC. AND ARE PROTECTED UNDER COPYRIGHT. THESE PLANS MAY NOT BE USED OR REPRODUCED WITHOUT EXPRESSED WRITTEN CONSENT OF HENRY SCHEIN, INC. AND FULL PAYMENT OF ANY ASSOCIATED DESIGN FEES. **ALL DIMENSIONS ARE SUBJECT TO JOB-SITE VERIFICATION.**

PROJECT NUMBER: 24-1751
PROJECT START DATE: 9/4/2023
FINALS START DATE: 9/4/2023
DRAWN BY: ARCH
FINALS BY: LMW
CHECKED BY: TS

REVISIONS:

--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---

INT.SQ.FT.= PER ARCH
SCALE: 1/4"=1'-0"
SHT. SIZE: 24 x 36
DENTAL ELECTRICAL PLAN

SE.1

© 2024 by HENRY SCHEIN, INC.

P:_ALL REGIONS\UT Utah\Godfrey\GODFREY-1-F

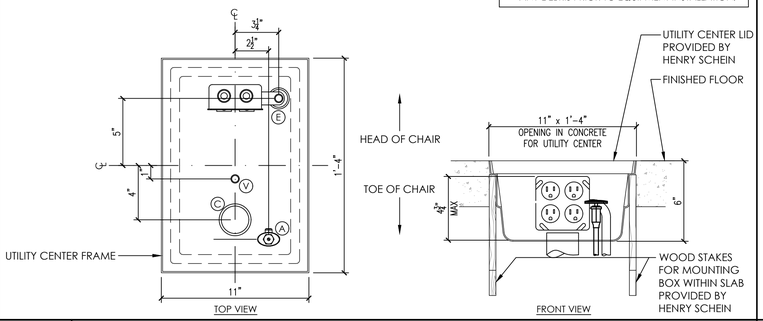
(A) COMPRESSED AIR: 1/2" SUPPLY LINE FROM AIR COMPRESSOR. STUB-UP FROM BOTTOM OF BOX AND TERMINATE WITH 3/8" ANGLE VALVE. PRESSURE 100 PSI MAX.

(V) CENTRAL VACUUM: 1/2" COPPER BRANCH LINE RISER BY PLUMBER. TERMINATE 1'-2" WITHIN BOX.

(E) ELECTRICAL: TWO GANG BOX & 115V QUAD OUTLET BY ELECTRICIAN. CHAIR MAX DRAW: 10A. UNIT MAX DRAW: 10A.

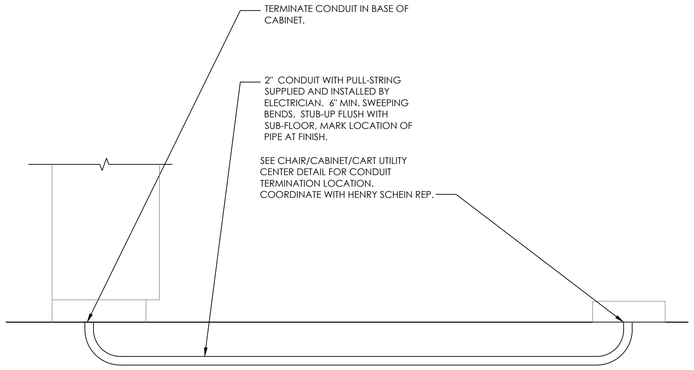
(C) CONDUIT: PVC CONDUIT WITH PULL-STRING BY ELECTRICIAN. 6" MIN. RADIUS FOR ALL BENDS. STUB-UP FLUSH WITH SUB-FLOOR, MARK LOCATION AT FINISH. **QUANTITY OF CONDUIT TERMINATIONS WILL VARY, SEE SHEET SE.1 FOR SIZES & LOCATIONS.**

NOTES:
1. DETAIL PROVIDED FOR UTILITY REQUIREMENTS. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR ADDITIONAL INFORMATION. HENRY SCHEIN DENTAL EQUIPMENT SPECIALIST WILL PROVIDE INSTALLATION TEMPLATE UPON REQUEST.
2. INSTALLATION MUST CONFORM TO ALL LOCAL ELECTRICAL AND PLUMBING CODES.
3. ALL UTILITIES HEREIN TO BE SUPPLIED & INSTALLED BY LICENSED CONTRACTORS. FINAL CONNECTIONS TO EQUIPMENT BY HENRY SCHEIN DENTAL.
4. ALL UTILITIES MUST BE NO HIGHER THAN 4 3/4" A.F.F. WITHIN BOX.
5. ALL PLUMBED SYSTEMS MUST BE FLUSHED CLEAN OF ANY DEBRIS PRIOR TO EQUIPMENT INSTALLATION.



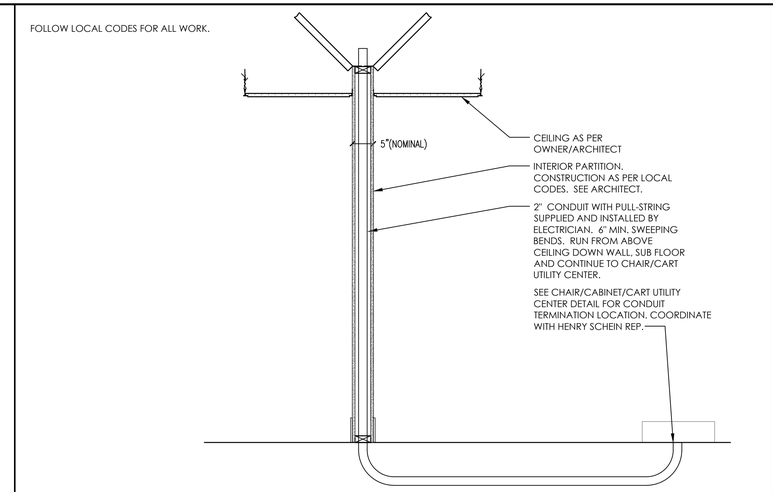
3A BOYD RECESSED UTILITY CENTER
NOT TO SCALE

FOLLOW LOCAL CODES FOR ALL WORK.



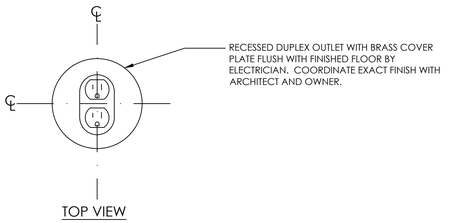
4A SUB-FLOOR CONDUIT
NOT TO SCALE

FOLLOW LOCAL CODES FOR ALL WORK.



4C 2" CONTINUOUS CONDUIT
NOT TO SCALE

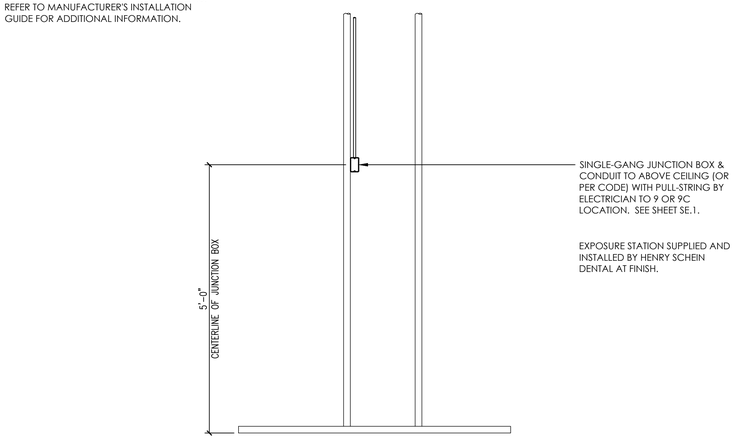
NOTES:
1. DETAIL PROVIDED FOR UTILITY REQUIREMENTS. REFER TO CHAIR MANUFACTURER'S INSTALLATION GUIDE FOR ADDITIONAL INFORMATION. HENRY SCHEIN DENTAL REP WILL PROVIDE INSTALLATION TEMPLATE UPON REQUEST.
2. INSTALLATION MUST CONFORM TO ALL LOCAL ELECTRICAL CODES.
3. ALL UTILITIES HEREIN TO BE SUPPLIED & INSTALLED BY LICENSED CONTRACTORS. FINAL CONNECTIONS TO EQUIPMENT BY HENRY SCHEIN DENTAL.



5 RECESSED CHAIR OUTLET
NOT TO SCALE

FOLLOW LOCAL CODES FOR ALL WORK.

DETAIL PROVIDED FOR UTILITY REQUIREMENTS. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR ADDITIONAL INFORMATION.

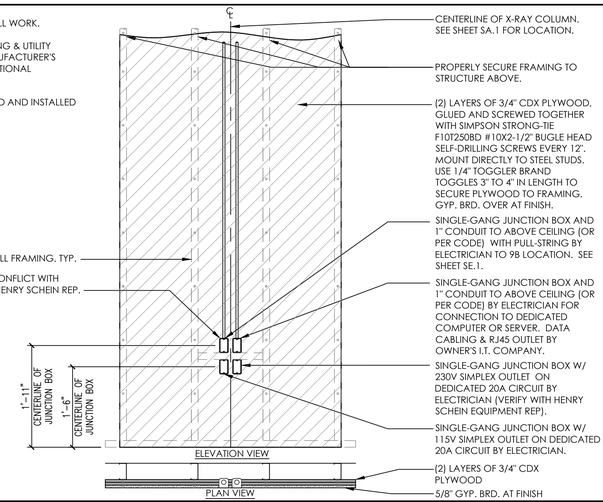


9B X-RAY EXPOSURE STATION
NOT TO SCALE

FOLLOW LOCAL CODES FOR ALL WORK.

DETAIL PROVIDED FOR UTILITY REQUIREMENTS. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR ADDITIONAL INFORMATION.

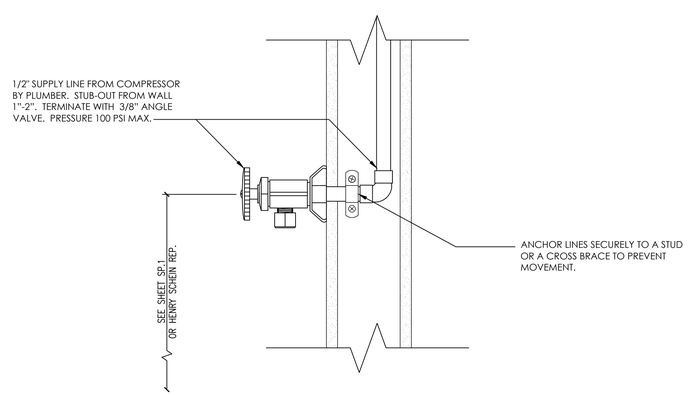
MOUNTING MATERIALS SUPPLIED AND INSTALLED BY CONTRACTOR.



9C PANORAMIC X-RAY
NOT TO SCALE

FOLLOW LOCAL CODES FOR ALL WORK.

DETAIL PROVIDED FOR UTILITY REQUIREMENTS. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR ADDITIONAL INFORMATION.

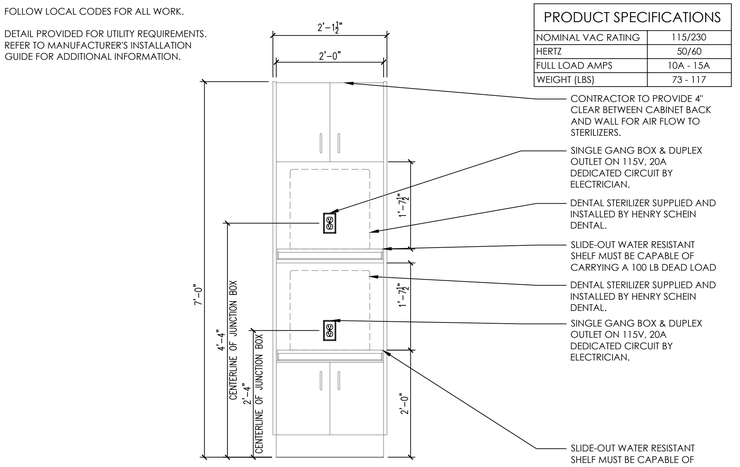


13 DENTAL AIR LINE
NOT TO SCALE

FOLLOW LOCAL CODES FOR ALL WORK.

DETAIL PROVIDED FOR UTILITY REQUIREMENTS. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR ADDITIONAL INFORMATION.

PRODUCT SPECIFICATIONS	
NOMINAL VAC RATING	115/230
HERTZ	50/60
FULL LOAD AMPS	10A - 15A
WEIGHT (LBS)	73 - 117

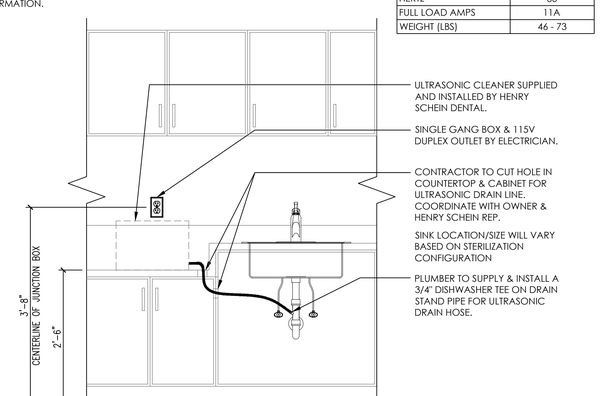


14A STERILIZER TOWER
NOT TO SCALE

FOLLOW LOCAL CODES FOR ALL WORK.

DETAIL PROVIDED FOR UTILITY REQUIREMENTS. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR ADDITIONAL INFORMATION.

PRODUCT SPECIFICATIONS	
NOMINAL VAC RATING	110
HERTZ	60
FULL LOAD AMPS	11A
WEIGHT (LBS)	46 - 73



15 ULTRASONIC CLEANER (DROP-DOWN)
NOT TO SCALE

HENRY SCHEIN®
INTEGRATED DESIGN STUDIO
10920 W LINCOLN AVE. WEST ALLIS, WI 53227
henryscheinintegrateddesign.com

PROJECT: **DR. TANNER GODFREY**

LOCATION: UTAH

HENRY SCHEIN REP:
ANDREW COTLLE

REGION:
UTAH

PHONE #:
801-842-4450

-IMPORTANT NOTE-
THIS DOCUMENT HAS BEEN PREPARED AS AN INSTRUMENT OF PROFESSIONAL SERVICE AND **IS NOT AN ARCHITECTURAL PLAN.** THE IDEAS/ DESIGN INCLUDED HEREIN ARE THE SOLE PROPERTY OF HENRY SCHEIN, INC. AND ARE PROTECTED UNDER COPYRIGHT. THESE PLANS MAY NOT BE USED OR REPRODUCED WITHOUT EXPRESSED WRITTEN CONSENT OF HENRY SCHEIN, INC. AND FULL PAYMENT OF ANY ASSOCIATED DESIGN FEES. **ALL DIMENSIONS ARE SUBJECT TO JOB-SITE VERIFICATION.**

PROJECT NUMBER:
24-1751

PROJECT START DATE:
9/4/2023

FINALS START DATE:
9/4/2023

DRAWN BY: ARCH
FINALS BY: LMW
CHECKED BY: TS

REVISIONS:

--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---

INT.SQ.FT.= PER ARCH

SCALE: SEE DETAIL
SHT. SIZE: 24 x 36

DENTAL EQUIP. DETAILS

SED.1

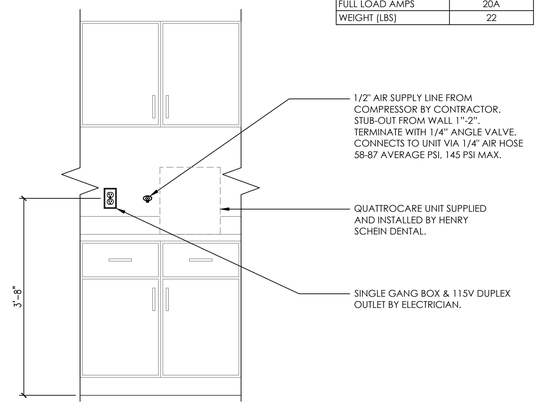
© 2024 by HENRY SCHEIN, INC.

P:\ ALL REGIONS\UT UtahGodfrey\GODFREY-1-

FOLLOW LOCAL CODES FOR ALL WORK.

DETAIL PROVIDED FOR UTILITY REQUIREMENTS. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR ADDITIONAL INFORMATION.

PRODUCT SPECIFICATIONS	
NOMINAL VAC RATING	120
HERTZ	50/60
FULL LOAD AMPS	20A
WEIGHT (LBS)	22



15B KAVO QUATTROCARE MAINTENANCE SYSTEM

NOT TO SCALE

EXTERIOR PIPING MUST BE PROTECTED FROM OUTDOOR ELEMENTS WITH AN INVERTED TRAP/SHROUD/SCREEN. EXHAUST TO HAVE 10' HORIZONTAL, 3' VERTICAL CLEARANCE FROM ANY FRESH AIR INTAKE(S) AND MUST BE ABOVE, NOT BELOW INTAKE(S).

RIGID CONDUIT & 18/4 LOW VOLTAGE WIRES TO REMOTE SHUT-OFF BY ELECTRICIAN.

3" INSULATED METAL EXHAUST VENT BY PLUMBER. SCH. 40 PVC MAY BE USED WHEN CONNECTED TO HEAT EXCHANGER. SEE HENRY SCHEIN REP. RUN TO EXTERIOR. PROTECT EXTERIOR PIPING FROM OUTDOOR ELEMENTS AS NEEDED.

2-GANG BOX & DEDICATED CIRCUIT(S) BY ELECTRICIAN. SEE CHART FOR SIZING. POWER IS HARDWIRED TO PUMP. ELECTRICIAN TO SUPPLY DISCONNECT BOX IF ELECTRICAL PANEL IS NOT IN MECHANICAL ROOM.

EXHAUST DRIP LEG ASSEMBLY. VERIFY SUPPLIER WITH HENRY SCHEIN REP DURING PLUMBING ROUGH IN. PLUMBER TO INSTALL ASSEMBLY ON EXHAUST LINE PER VACUUM MANUFACTURER'S RECOMMENDATIONS.

SINGLE GANG BOX & 115V HOSPITAL GRADE NEMA 5-15R SIMPLEX OUTLET BY ELECTRICIAN FOR MONITOR MASTER CONTROLLER. DRAW: 5A

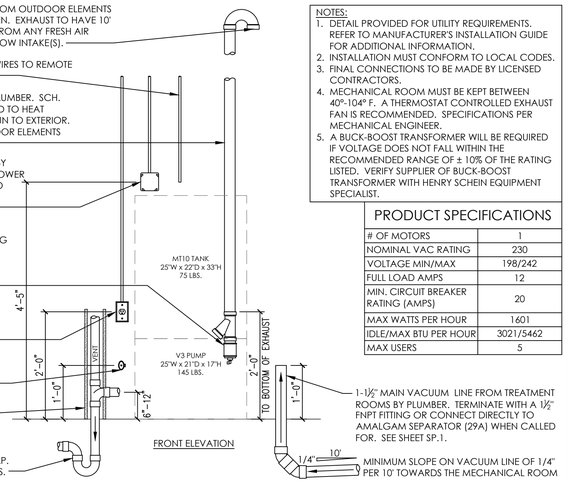
1/2" WATER SUPPLY LINE WITH 1/2" FNPT ANGLE VALVE WITHIN 10' OF TANK BY PLUMBER.

DRAIN STUB-OUT IN REAR OR SIDE WALL BASED ON SITE CONDITIONS.

1½" CLOSED VENTED DRAIN LINE BY PLUMBER, NO TRAP BEFORE VENT. OR DRAIN LINE WITH P-TRAP AND AIR GAP. OR FLOOR SINK. FOLLOW LOCAL CODES.

NOTES:
1. DETAIL PROVIDED FOR UTILITY REQUIREMENTS. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR ADDITIONAL INFORMATION.
2. INSTALLATION MUST CONFORM TO LOCAL CODES.
3. FINAL CONNECTIONS TO BE MADE BY LICENSED CONTRACTORS.
4. MECHANICAL ROOM MUST BE KEPT BETWEEN 40°-104° F. A THERMOSTAT CONTROLLED EXHAUST FAN IS RECOMMENDED. SPECIFICATIONS PER MECHANICAL ENGINEER.
5. A BUCK-BOOST TRANSFORMER WILL BE REQUIRED IF VOLTAGE DOES NOT FALL WITHIN THE RECOMMENDED RANGE OF ± 10% OF THE RATING LISTED. VERIFY SUPPLIER OF BUCK-BOOST TRANSFORMER WITH HENRY SCHEIN EQUIPMENT SPECIALIST.

PRODUCT SPECIFICATIONS	
# OF MOTORS	1
NOMINAL VAC RATING	230
VOLTAGE MIN/MAX	198/242
FULL LOAD AMPS	12
MIN. CIRCUIT BREAKER RATING (AMPS)	20
MAX WATTS PER HOUR	1601
IDLE/MAX BTU PER HOUR	3021/5462
MAX USERS	5

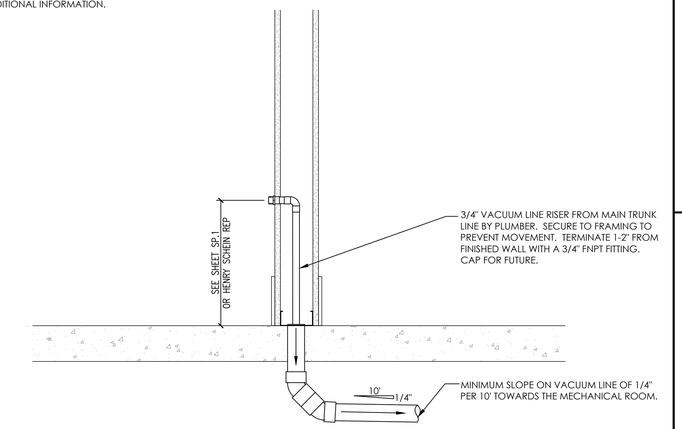


27 AIRTECHNIQUES MOJAVE V3M VACUUM

NOT TO SCALE

FOLLOW LOCAL CODES FOR ALL WORK.

DETAIL PROVIDED FOR UTILITY REQUIREMENTS. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR ADDITIONAL INFORMATION.



28 GENERAL PURPOSE VACUUM OUTLET

NOT TO SCALE

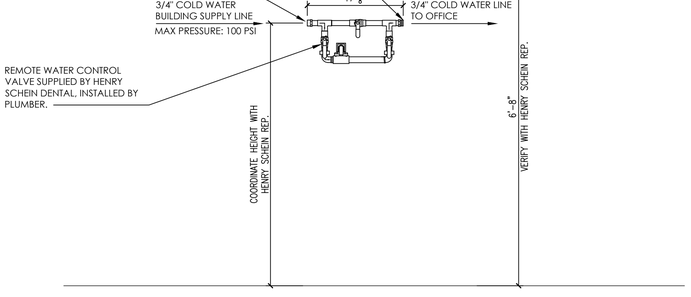
FOLLOW LOCAL CODES FOR ALL WORK.

DETAIL PROVIDED FOR UTILITY REQUIREMENTS. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR ADDITIONAL INFORMATION.

RIGID CONDUIT (AS NEEDED OR PER CODE) & 18/4 LOW VOLTAGE WIRE TO REMOTE SHUT-OFF BY ELECTRICIAN.

(2) 3/4" MNPT X 3/4" SWEAT ADAPTERS SUPPLIED BY HENRY SCHEIN DENTAL, INSTALLED BY PLUMBER ON BUILDING SUPPLY LINE.

REMOTE WATER CONTROL VALVE SUPPLIED BY HENRY SCHEIN DENTAL, INSTALLED BY PLUMBER.

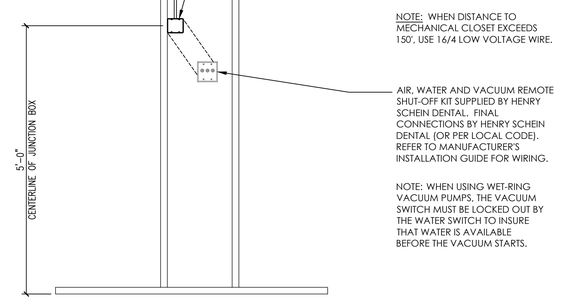


30 AIR TECHNIQUES REMOTE WATER CONTROL VALVE

NOT TO SCALE

FOLLOW LOCAL CODES FOR ALL WORK.

DETAIL PROVIDED FOR UTILITY REQUIREMENTS. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR ADDITIONAL INFORMATION.



32 MECHANICAL REMOTE SHUT-OFF (3 SWITCH)

NOT TO SCALE

HENRY SCHEIN®
INTEGRATED DESIGN STUDIO
10920 W LINCOLN AVE. WEST ALLIS, WI 53227
henryscheinintegrateddesign.com

PROJECT: **DR. TANNER GODFREY**

LOCATION: UTAH

HENRY SCHEIN REP:
ANDREW COTLLE

REGION:
UTAH

PHONE #:
801-842-4450

-IMPORTANT NOTE-
THIS DOCUMENT HAS BEEN PREPARED AS AN INSTRUMENT OF PROFESSIONAL SERVICE AND **IS NOT AN ARCHITECTURAL PLAN.** THE IDEAS/ DESIGN INCLUDED HEREIN ARE THE SOLE PROPERTY OF HENRY SCHEIN, INC. AND ARE PROTECTED UNDER COPYRIGHT. THESE PLANS MAY NOT BE USED OR REPRODUCED WITHOUT EXPRESSED WRITTEN CONSENT OF HENRY SCHEIN, INC. AND FULL PAYMENT OF ANY ASSOCIATED DESIGN FEES. **ALL DIMENSIONS ARE SUBJECT TO JOB-SITE VERIFICATION.**

PROJECT NUMBER:
24-1751

PROJECT START DATE:
9/4/2023

FINALS START DATE:
9/4/2023

DRAWN BY: ARCH
FINALS BY: LMW
CHECKED BY: TS

REVISIONS:

--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---
--/--/--	---

INT.SQ.FT.= PER ARCH

SCALE: SEE DETAIL
SHT. SIZE: 24 x 36

DENTAL EQUIP. DETAILS

SED.2

© 2024 by HENRY SCHEIN, INC.

P:_ALL REGIONS\UT Utah\Godfrey\GODFREY-1-