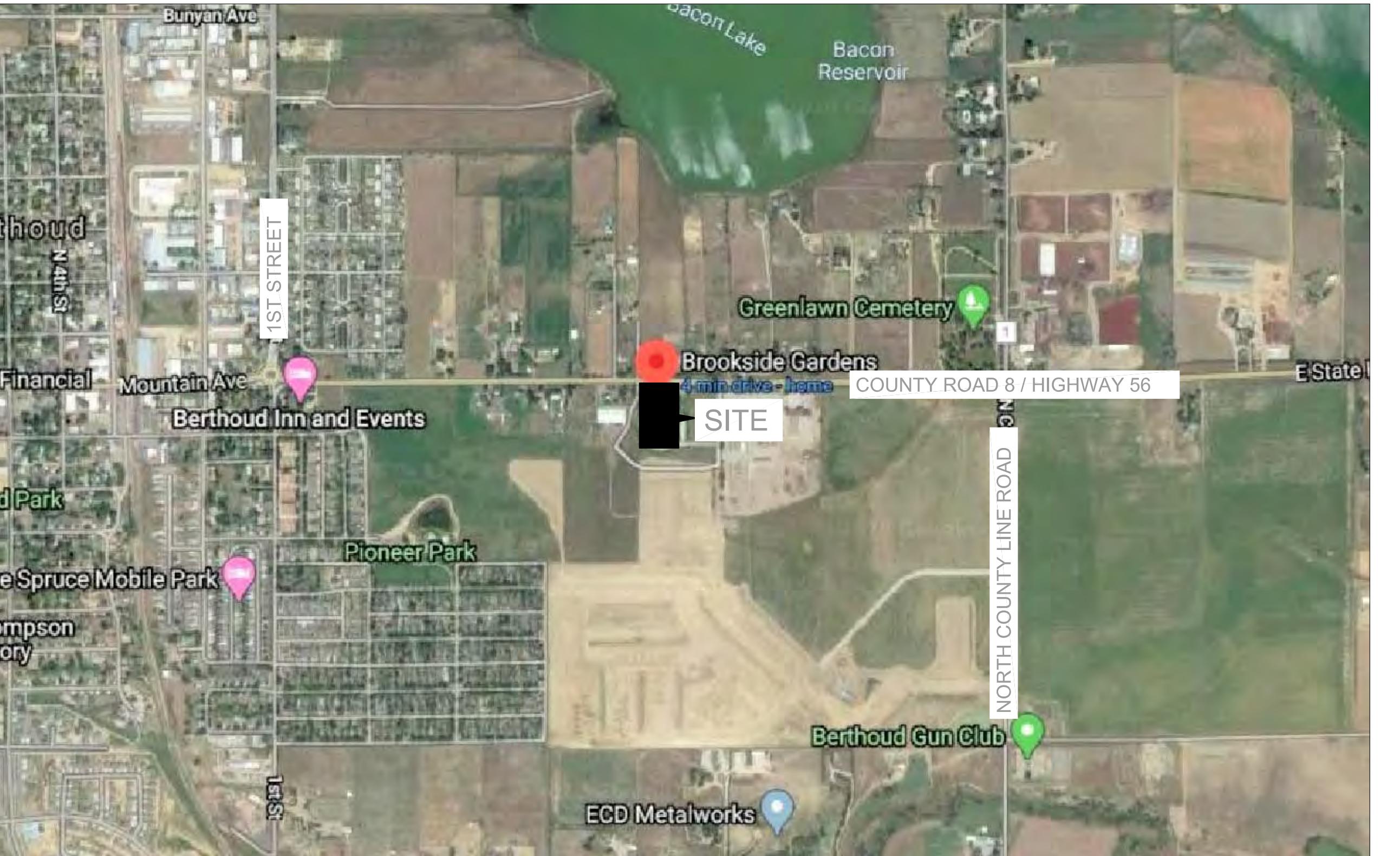




SITE MAP
NO SCALE

VICINITY MAP
NO SCALE



LEGAL DESCRIPTION:

PARCEL # 9424009701
LEGAL DESCRIPTION:LOT 1, AMD BEBO MRD S-76-87, BER

CODE STUDY:

Applicable Codes:
2018 International Building Code, 2018 International Existing Building Code
2018 International Plumbing Code, 2018 International Mechanical Code
2017 National Electric Code, 2018 International Fire Code
2018 International Energy Conservation Code
ICC/ANSI a117.1-2009 Accessible and Usable Building and Facilities

Construction Type: Type V-B Without fire suppression (2018 IBC Tables 506.2 pg. 109-110)

Building area:
Building footprint = 2,538 S.F.
Second Floor = 2,598 S.F.

Occupancy Groups: (2018 IBC Sections 303 - 312 pg. 45-54)
B-Business (Kitchen (Not associated with a restaurant less than 2,500 s.f.), Entry, office area Restrooms) = 2,313 Sq.Ft.
S-2 -Storage (Ground Floor, low hazard storage of dry goods related to catering business) = 225 Sq.Ft.
B-Business (Second Floor Office area) = 1,598 Sq.Ft.
S-2 -Storage (Second Floor, low hazard storage of dry goods related to catering business) = 1,000 Sq.Ft.

Allowable Height and Area: (IBC 2018 Tables 504.4 and 506.2 pg. 106-110)
B- = 6,000 Sq. Ft. 2 Story
S2 - = 13,500 Sq.Ft. 2 Story

Allowable area modification is not required for this structure. No allowable areas are exceeded (IBC 2018 Tables 504.4 and 506.2 pg. 106-110)

Occupant Loads: (2018 IBC Table 1004.5 pg.259)
See occupancy map for occupant load areas and details

-Entry, Restrooms = 9
-Commercial Kitchen = 7
-Flex Office Area = 11
-Storage = 2
Total Code Occupants = 30 Occupants

Signage:
-Where required exit signs shall comply with 2018 IBC section 1013.1 pg. 281
-No doors are proposed to have a keyed lock from the interior side
-Restrooms shall be provided with signs that designate sex and be readily visible and located near the restroom entrance per 2018 IBC Section 2902.4 pg. 590

-Accessibility signage shall be provided per 2018 IBC Section 1111.1 pg. 319

Parking:
Accessible parking to be provided per 2018 IBC Table 1106.1 pg.308
2 accessible parking spaces will be provided per the included site plan

Accessibility Requirements (Chapter 11 IBC):
-This building shall comply with 2018 IBC Level 2 remodel requirements
-60% of public entrances shall be accessible per 2018 IBC Section 1105.1 pg. 307

No area of this building will become less safe due to the proposed improvements per IBC Section 701.2

Means of Egress:
Accessible means of egress shall meet the requirements of Chapter 10
Exit travel distance from all areas is less than 200' per 2018 IBC Table 1017.2 pg. 285
All common path egress travel distances are less than 100' per 2018 IBC Table 1006.2.1 pg. 262 for B occupancy group with less than 30 occupants.
All common path egress occupant load is less than 49 for B occupancies per 2018 IBC Table 1006.2.1 pg. 262

-Egress illumination Per 2018 IBC Section 1008 pg.264. The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied and illumination shall not be less than 1 foot-candle at the walking surface level as required per IBC 2018 Section 1008.2.1

Doorways:
-Accessible doorways shall not require turning of the wrist to operate, provide lever arm knobs or push/pull hardware per 2018 IBC Section 1010.1.9.1
- No panic hardware is required for this building per 2018 IBC Section 1010.1.9.4 number 2
- No doors in this building are proposed to have a keyed lock on the egress side of the door.
-Minimum clear width at all egress doors is 32". Maximum nominal door width is 48" per 2018 IBC section 1010.1.1

Minimum Corridor width:
The entire building is proposed to have an occupant load of less than 50 and is therefore required to provide a minimum of 36" finished width at all corridors per 2018 IBC Section 1020.2 Table 1020.2

Restroom Requirements: (2018 IBC Table 2902.1 pg.587-589)

Water Closets Required.

B-Business (Employees) = 1 per 25 @ 15 men and 15 women = .6

Total = 1 mens restroom and 1 womans restroom are required per 2018 IBC section 2902.2 over 25 business occupants.
1 shared accessible restroom is proposed. 1 Woman's restroom with 2 toilets is existing.

Lavatories Required
B-Business (Employees) = 1 per 40 @ 15 men and 15 women = .4

Total = 1.0 men's, 1.0 woman's.
1 shared lavatory is proposed and 2 Woman's lavatory are existing

The restrooms within this structure are not fully ADA compliant therefore, the men's restroom is to be modified to become a fully compliant shared restroom. The existing woman's restroom is to remain without work.

-Drinking water is available with cups from a water dispenser located on the ground floor
-1 service sink is provided within the mechanical closet area

PROJECT DIRECTORY:

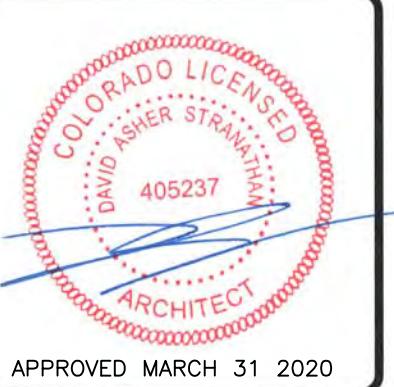
OWNER:
Attn: Lead Holding Company LLC
Jamie and Tiffany Degnan
619 E County Road 8,
Berthoud, CO 80513
Phone: (970) 532-3663
Tiffany@BrooksideGardens.com

GENERAL CONTRACTOR:
4 B's Construction
Attn: Vance Bunker
1110 4th St.
Berthoud, CO 80513
Phone: 303-775-8476
E-mail: vanceat4bs@msn.com

ELECTRICAL ENGINEER
John M Benson P.E.
Attn: John Benson
P.O. Box 916
Laport, CO 80535
Phone Office: 970.482.3986
Phone Cell: 970-227-8809
E-mail: jbensonpe@yahoo.com

MECHANICAL ENGINEER
Integrated Mechanical
Attn: Josh Miller
320 Maple Street, Suite 110
Fort Collins CO 80521
Phone: 970-556-0570
E-mail: josh-m@int-mech.com

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Fax: (970) 667-3940
E-mail: freemanarchs@aol.com



FREEMAN
ARCHITECTS, PC
2024 Blue Mesa Court 80538
(970) 667-3940
LOVELAND, CO

SHEET INDEX:

1. COVER	
ARCHITECTURAL	
2. A1 of 4	ACCESSIBILITY, EGRESS, OCCUPANCY
3. A2 of 4	FLOOR PLANS
4. A3 of 4	KITCHEN DETAILS
5. A4 of 4	ELEVATIONS
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6. MP O.1 of 11	GENERAL NOTES
7. M 2.1 of 11	HVAC FLOOR PLAN
8. M 7.1 of 11	HVAC SCHEDULES
9. M 8.1 of 11	KITCHEN MECHANICAL EQUIP. SCHEDULES, DETAILS
10. M 8.2 of 11	KITCHEN MECHANICAL EQUIP. SCHEDULES, DETAILS
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12. M 8.4 of 11	KITCHEN MECHANICAL EQUIP. SCHEDULES, DETAILS
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ELECTRICAL	
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18. E2 of 3	POWER PLAN
19. E3 of 3	LIGHTING PLAN
20. E4 of 4	SPECIFICATIONS

PROJECT NARRATIVE:

The owners of the Brookside Gardens Event center are proposing alterations to the existing barn structure located at the south side of the property. The alterations include changing the use of the building from an event center as listed in the previous building permit #18-09 to a business use for their catering kitchen and office facilities.

The kitchen is proposed to take up about half of the ground floor of the building and will be utilized to prepare food for catering events at this location and others. The kitchen includes sinks, ware-washing area, prep area, cooking area, refrigeration area, and dry food storage area.

The office area will consist of free standing furniture and requires no building alterations. One office area is on the ground floor and the majority of office area will be on the second floor. Some storage of low hazard items is also proposed on the second floor and ground floor. Low hazard items include excess silverware, plates, promotional items, metal, metal chairs and associated catering items. The entire second floor area is less than 3,000 square feet and complies with IBC 2018 chapter 11.

The building is already equipped with two restrooms on the ground floor that were constructed in 2009 under permit number 18-09. No additional restroom fixtures are proposed or required to meet fixture requirements based off of the occupant load. The existing men's restroom is proposed to be modified to provide a fully accessible shared restroom within this building. The existing woman's restroom is to remain without work. The restroom in this building will also be utilized during outdoor events and will be analyzed under a future permit for the event center.

Plumbing, mechanical, and electrical engineering are provided within this plan set.

PROJECT NO.	DRAWN	2-17-20	CHECKED	4-20-20	REVISIONS	3-21-20

Construction Documents
COVER



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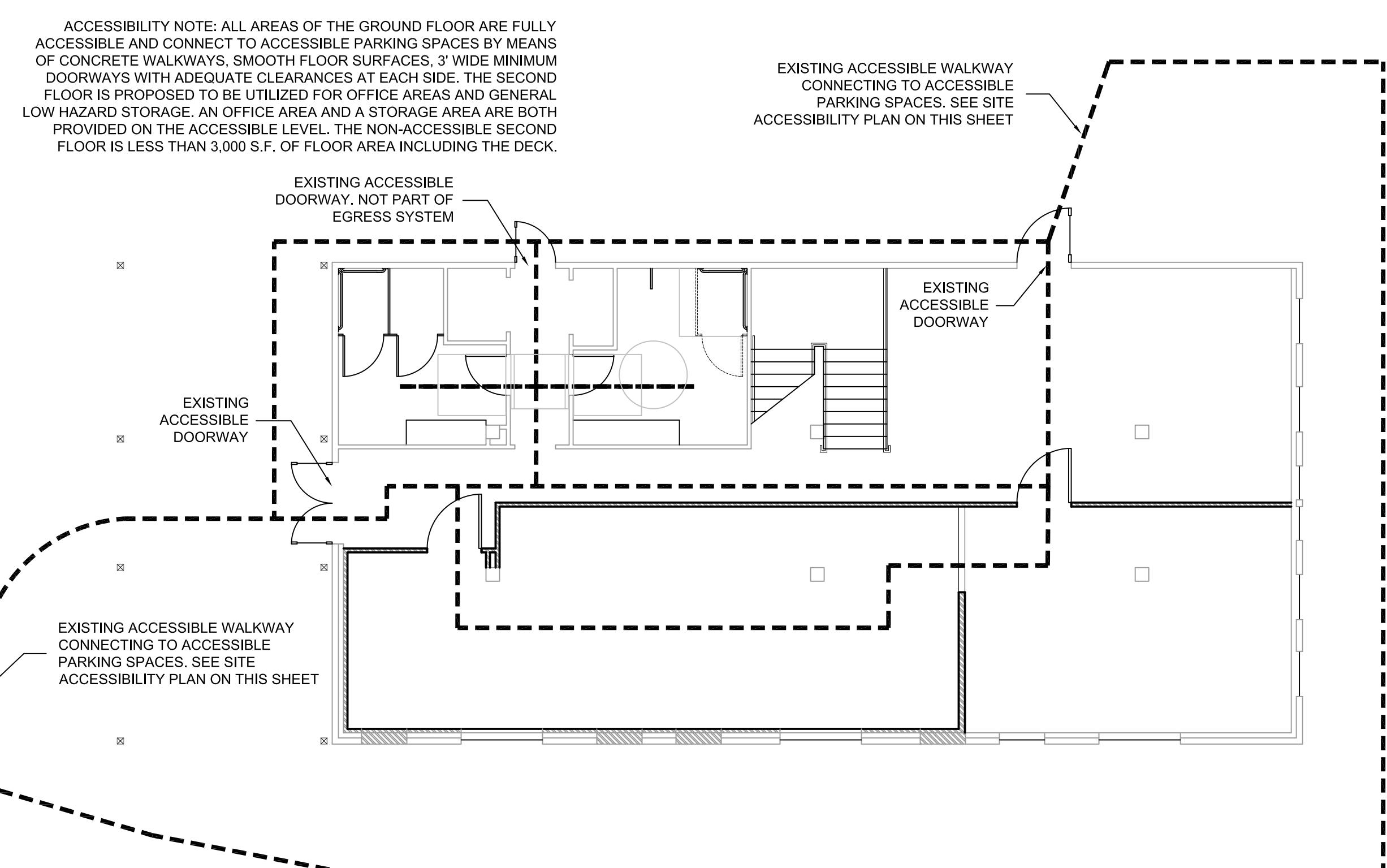
(970) 667-3939

FAX: (970) 667-3940

Brookside Gardens
Barn Remodel

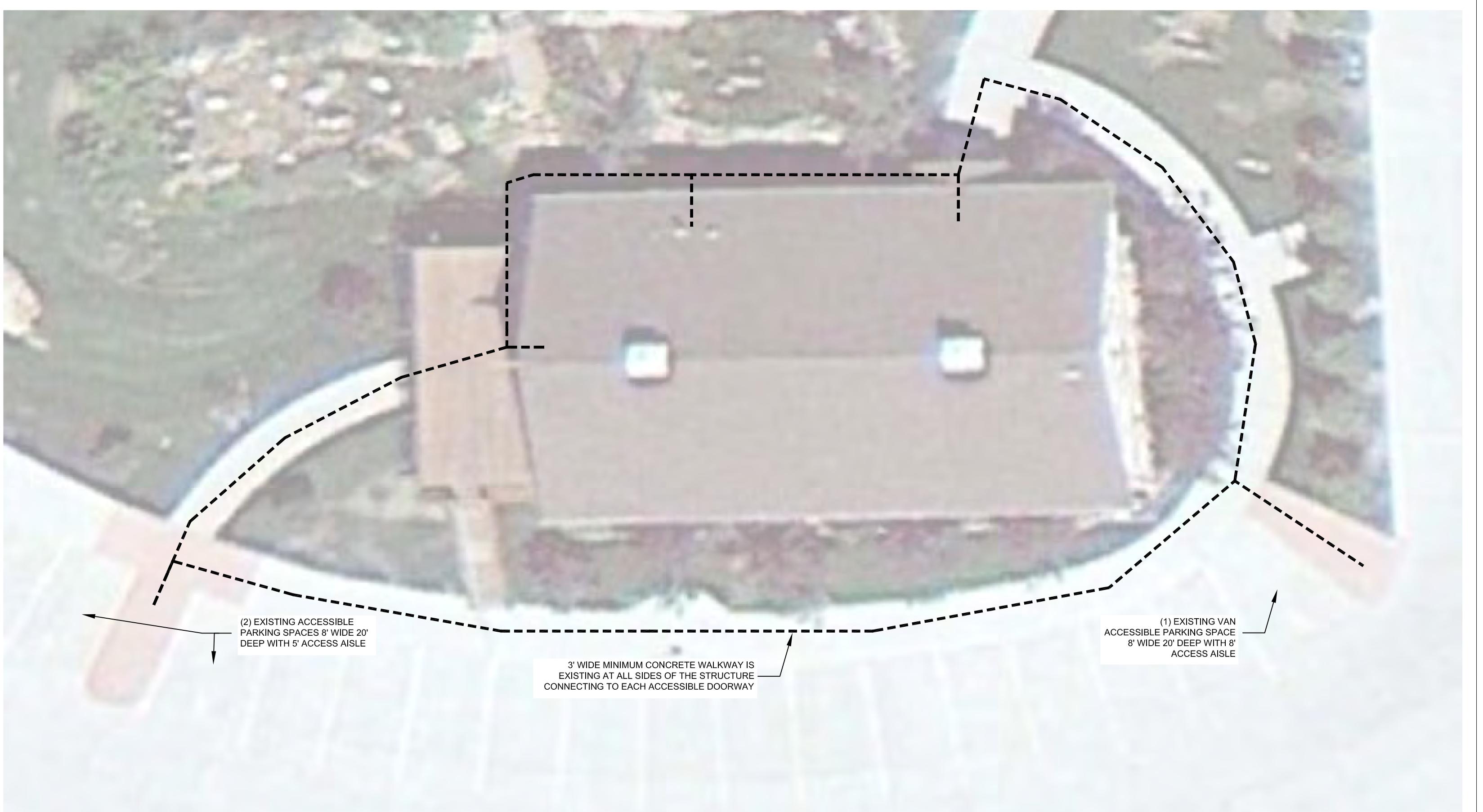
619 E. County Road 8
Berthoud, CO 80538

Construction Documents
SHEET A1 OF 4



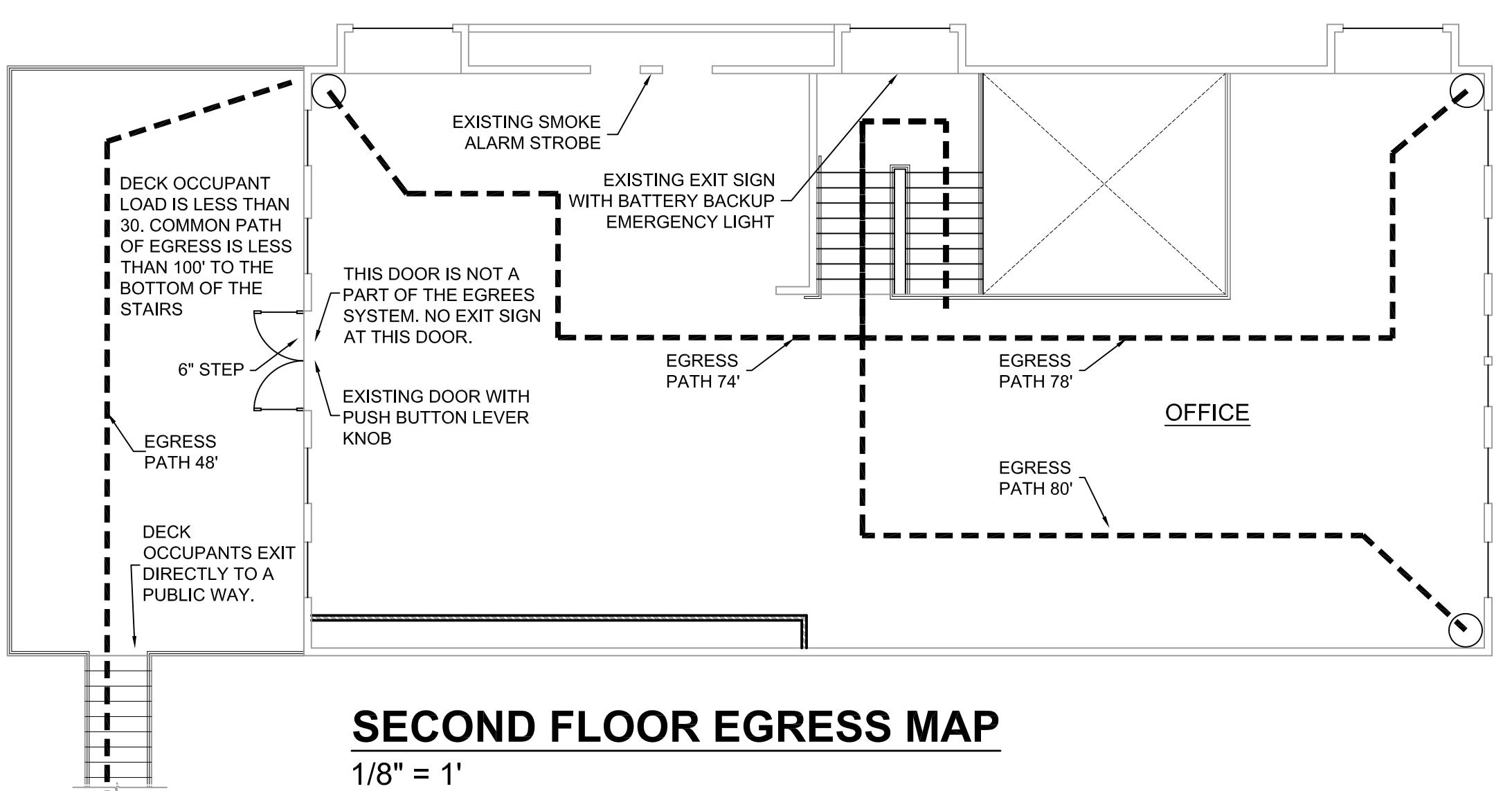
GROUND FLOOR ACCESSIBILITY MAP

1/8" = 1'



SITE ACCESSIBILITY MAP

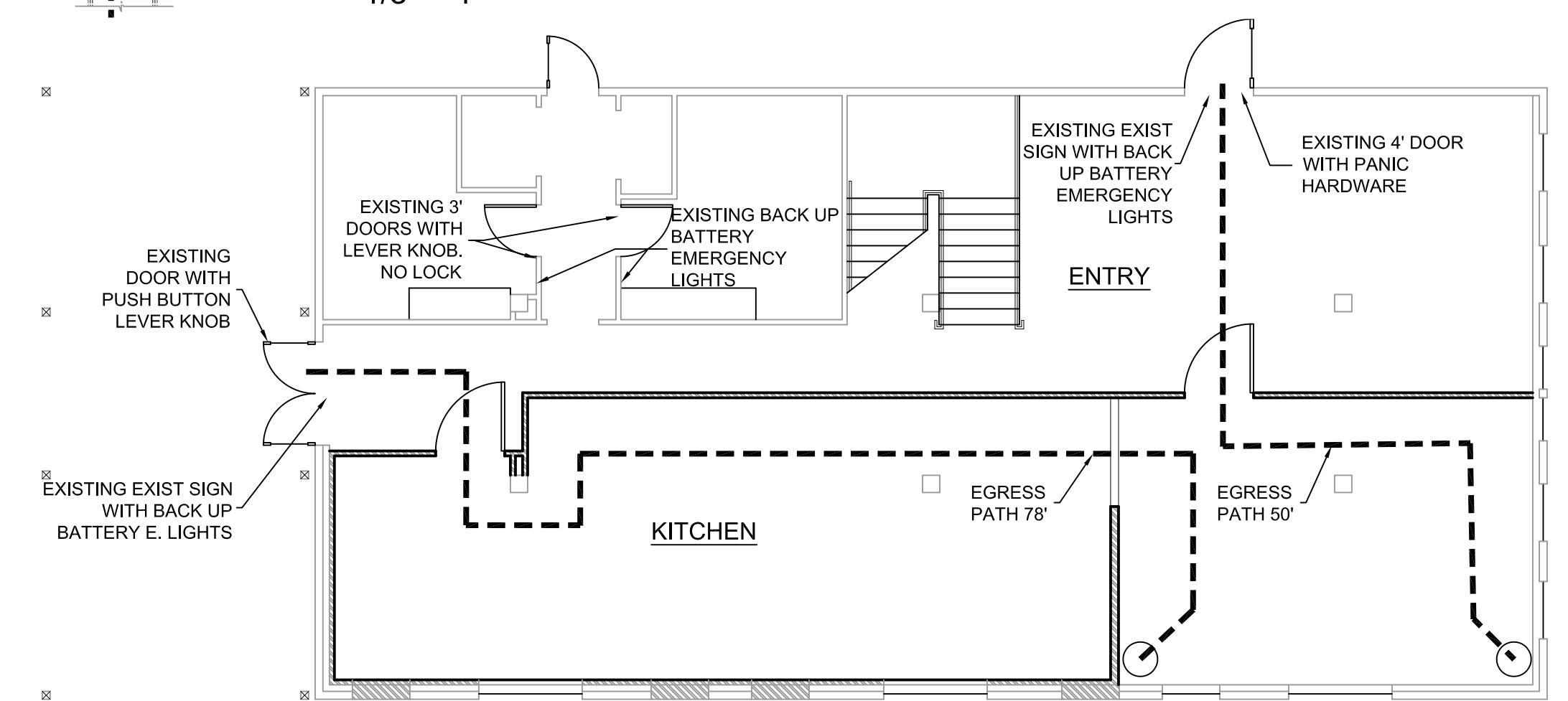
NOT TO SCALE



SECOND FLOOR EGRESS NOTES:
-THE SECOND FLOOR HAS A SINGLE MEANS OF EGRESS VIA THE INTERIOR STAIRWAY. THE EXISTING STAIRS HAVE A TREAD DEPTH OF 11" AND A RISER HEIGHT OF 6 1/2".
-THE EXTERIOR DOORS ON THE WEST END OF THE BUILDING LEADING TO THE EXISTING DECK STRUCTURE ARE NOT PART OF THE EGRESS SYSTEM.
-OCCUPANTS ON THE DECK CAN EXIT DIRECTLY TO THE GROUND IN LESS THAN 100'. DECK OCCUPANTS DO NOT EXIT THROUGH THE BUILDING.
-ALL PATHWAYS FROM ANY POINT WITHIN THE SECOND FLOOR TO THE BOTTOM OF THE STAIRS IS LESS THAN 100' LONG.
-THERE ARE LESS THAN 30 OCCUPANTS WITHIN THE UPPER FLOOR AREA.
-A FIRE ALARM WITH STROBE LIGHT IS EXISTING WITHIN THE SECOND FLOOR. OWNER TO HIRE FIRE ALARM SPECIALIST TO VERIFY FIRE ALARM SYSTEM IS OPERATIONAL WITHIN ENTIRE BUILDING.
-AN ILLUMINATED EXIT SIGN IS EXISTING ABOVE THE STAIR LANDING AND EQUIPPED WITH BATTERY BACKUP EMERGENCY LIGHTING. OWNER OR GC TO VERIFY BATTERY IS CHARGING AND OPERATIONAL.

SECOND FLOOR EGRESS MAP

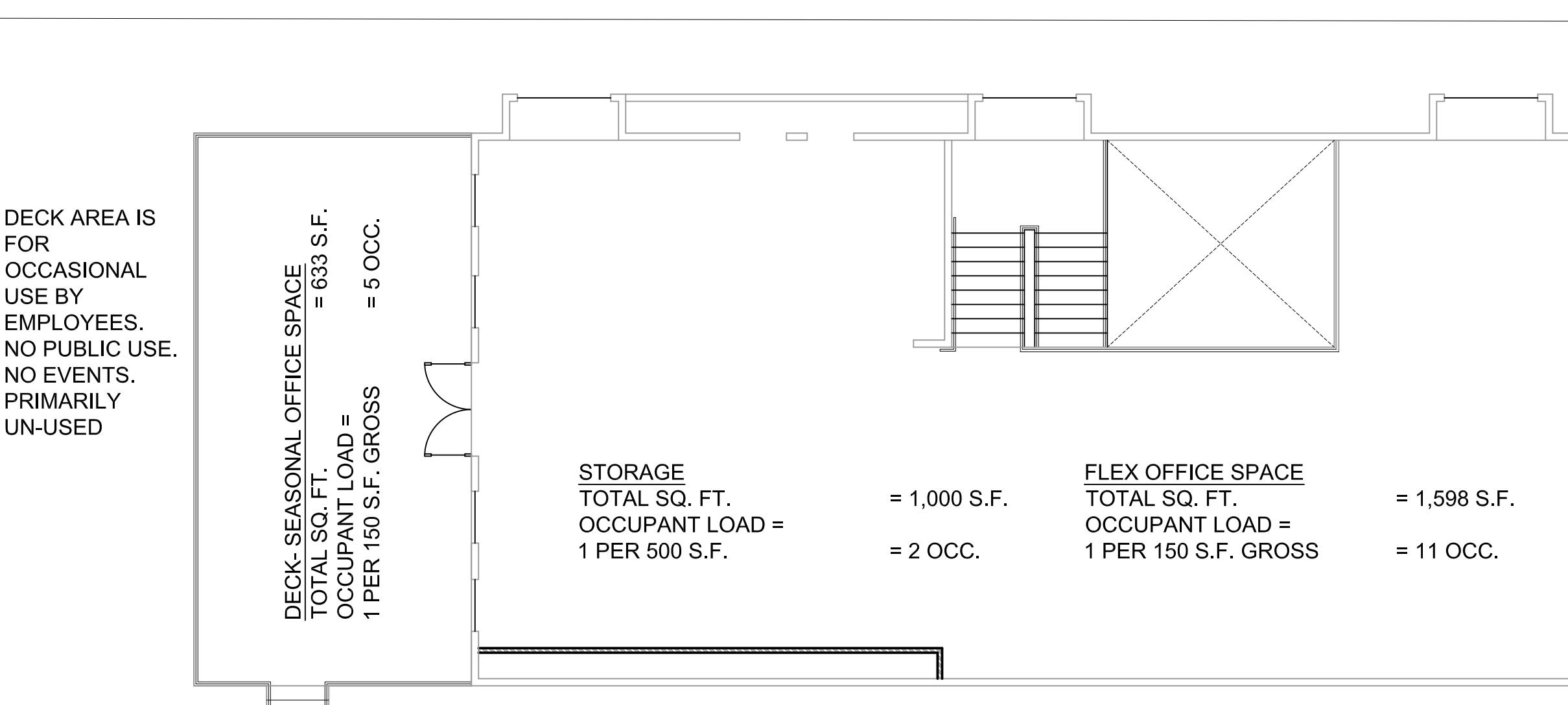
1/8" = 1'



GROUND FLOOR EGRESS NOTES:
-THE GROUND FLOOR HAS 2 ACCESSIBLE EGRESS DOORS. ONE IS 36" WIDE. ONE IS 48" WIDE.
-EXIT DISTANCE FROM ALL AREAS IS LESS THAN 200'.
-ALL COMMON PATH EGRESS IS LESS THAN 100' WITH LESS THAN 30 OCCUPANTS.
-TWO SMOKE ALARMS ARE EXISTING WITHIN THE GROUND FLOOR. OWNER TO HIRE FIRE ALARM SPECIALIST TO VERIFY FIRE ALARM SYSTEM IS OPERATIONAL WITHIN ENTIRE BUILDING.
-AN ILLUMINATED EXIT SIGN IS EXISTING ABOVE EACH EGRESS DOOR AND EQUIPPED WITH BATTERY BACKUP EMERGENCY LIGHTING. OWNER OR GC TO VERIFY BATTERY IS CHARGING AND OPERATIONAL.

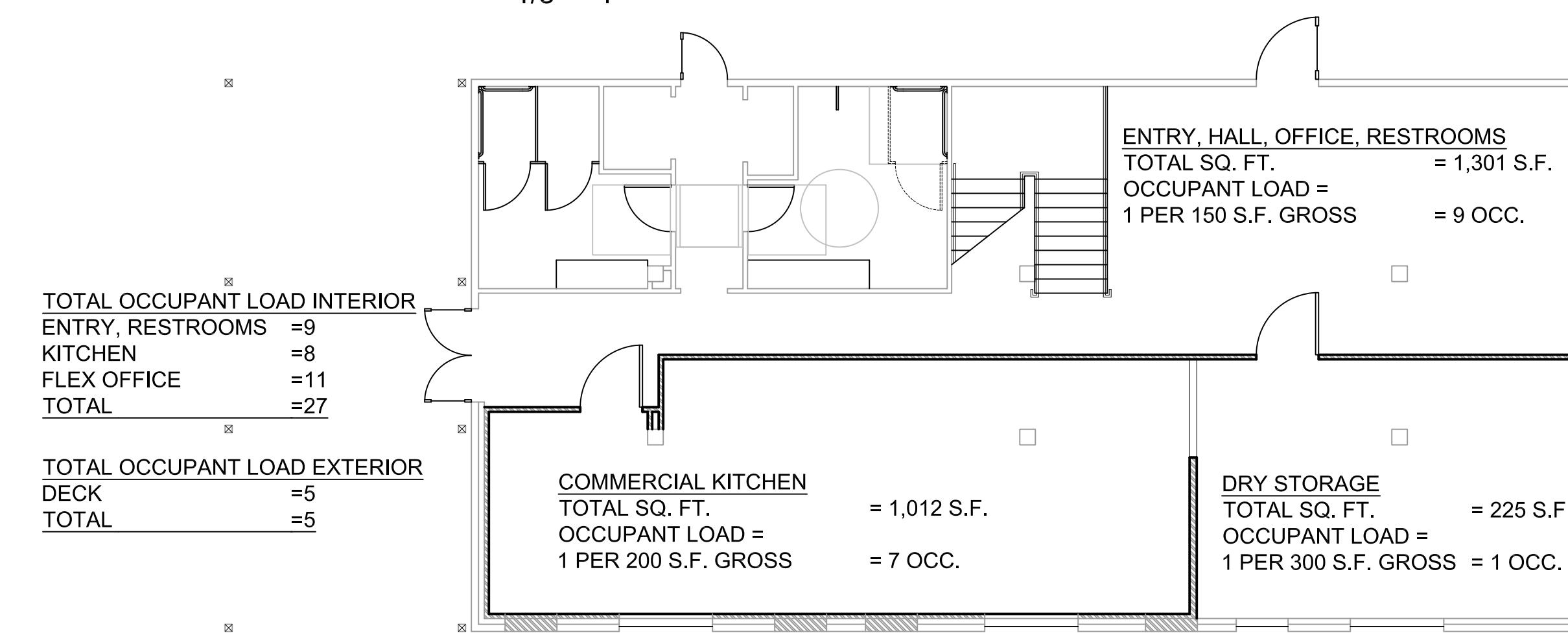
GROUND FLOOR EGRESS MAP

1/8" = 1'



SECOND FLOOR OCCUPANCY MAP

1/8" = 1'



GROUND FLOOR OCCUPANCY MAP

1/8" = 1'

PROJECT NO.	DRAWN	2-17-20
	CHECKED	3-29-20
REVISIONS		David

Construction Documents
SHEET A1 OF 4

GENERAL NOTES:

GENERAL:
All Finishes to be coordinated and verified with business owner.

I. INTERIOR PARTITION WALLS

A. Partition walls to be 2x6 or 2x4 wood or metal studs @ 16" o.c.
B. Verify wall finishes with owner. Provide durable cleanable wall surfaces within kitchen as required per health department.
Re-use pine T&G at new hallway if possible.
C. Provide 5/8" type X drywall on all walls within kitchen and cover with FRP finish material.

II. PAINT

A. All exposed drywall to receive one coat PVA primer and two coats of latex paint, color -white unless owner requests otherwise.

III. FLOOR COVERING

A. Exposed concrete to remain. Patch and repair as needed for plumbing. Apply sealant coat to new concrete and fill all joints with self leveling Silka Flex Joint caulking to provide continuous cleanable flooring surface.

IV. ELECTRICAL SYSTEM

A. See electrical engineering for electrical improvements. New transformer is proposed to be set along the west property line. A new electric service will supply the buildings existing breaker panel along with a new breaker panel for the kitchen improvements.

V. MECHANICAL SYSTEM

A. See mechanical engineering for mechanical improvements. A new make up air unit is proposed along with new exhaust air system within the kitchen. The existing heating and air conditioning system is to remain with minor alterations. Existing ground floor thermostat to be relocated within the kitchen area.

VI. PLUMBING SYSTEM

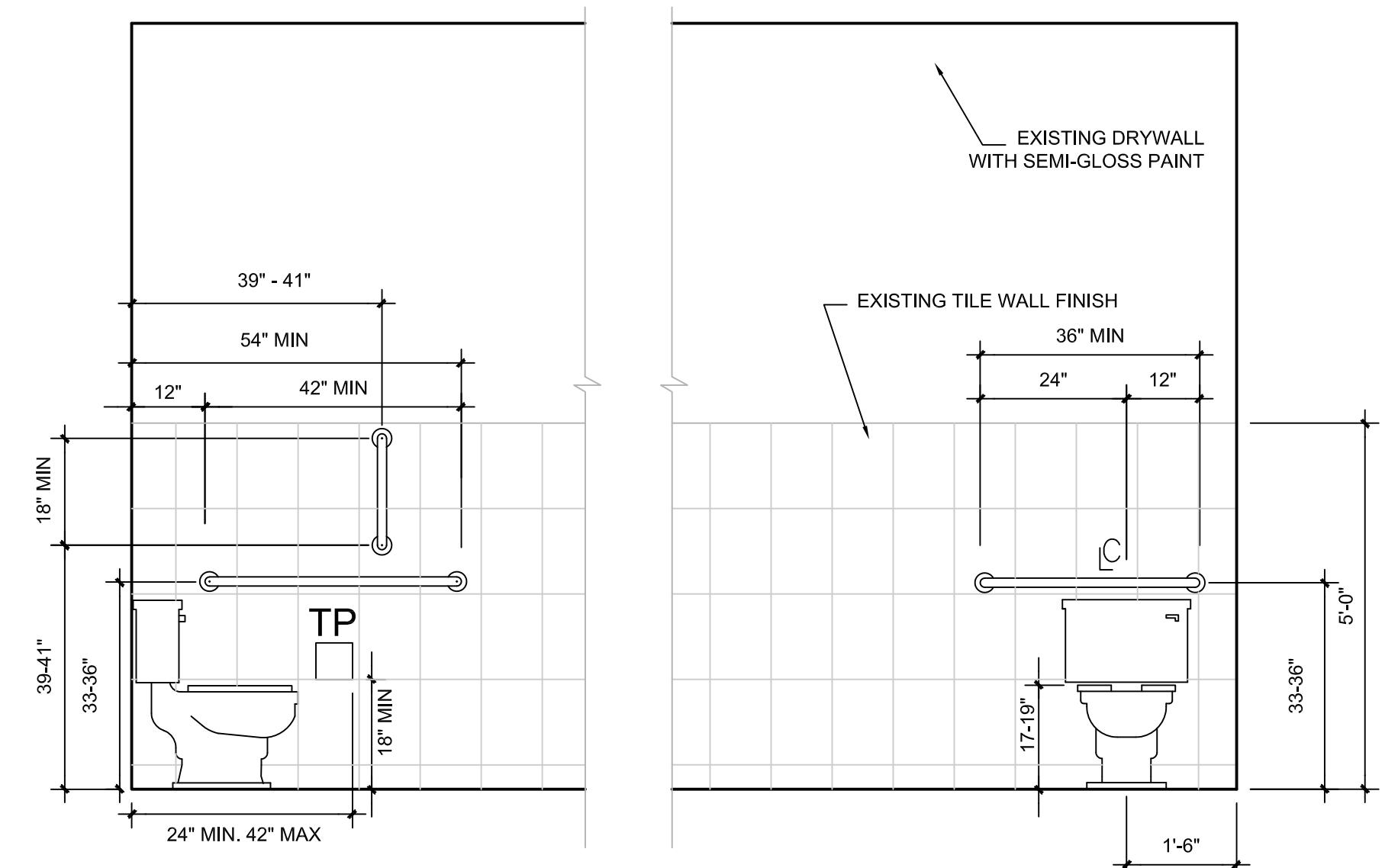
A. See plumbing engineering for plumbing improvements. New plumbing is proposed for the new fixtures running to the existing septic system per the plumbing plans.

VI. MISCELLANEOUS REQUIREMENTS

A. Divert construction and demolition debris from disposal in landfills and incinerators. Redirect recyclable recovered resources back to the manufacturing process. Redirect reusable materials to appropriate sites.

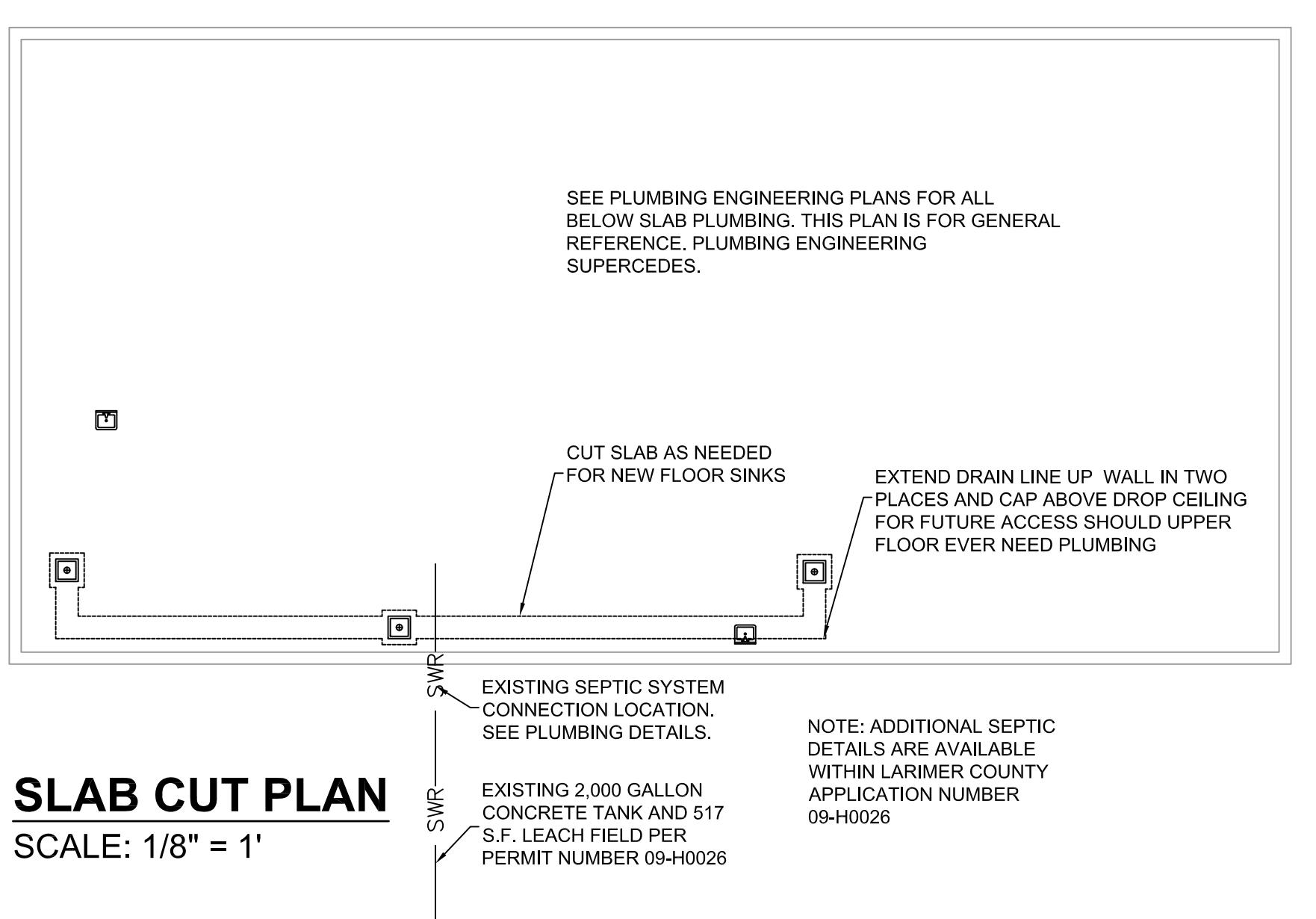
VII. GENERAL NOTES

A. All other products are per plans and specifications. General Contractor is responsible for contacting the specified vendors for longer lead items and contracting with local distributors as needed.
B. All Voice/Data wiring and security systems will be handled by Business Owner under a separate contract.
D. Owner shall specify to general contractor any special requirements of electrical, mechanical, computer, or telephone systems.
E. Provide 10# ABC Fire Extinguishers and locate per Fire Marshal.



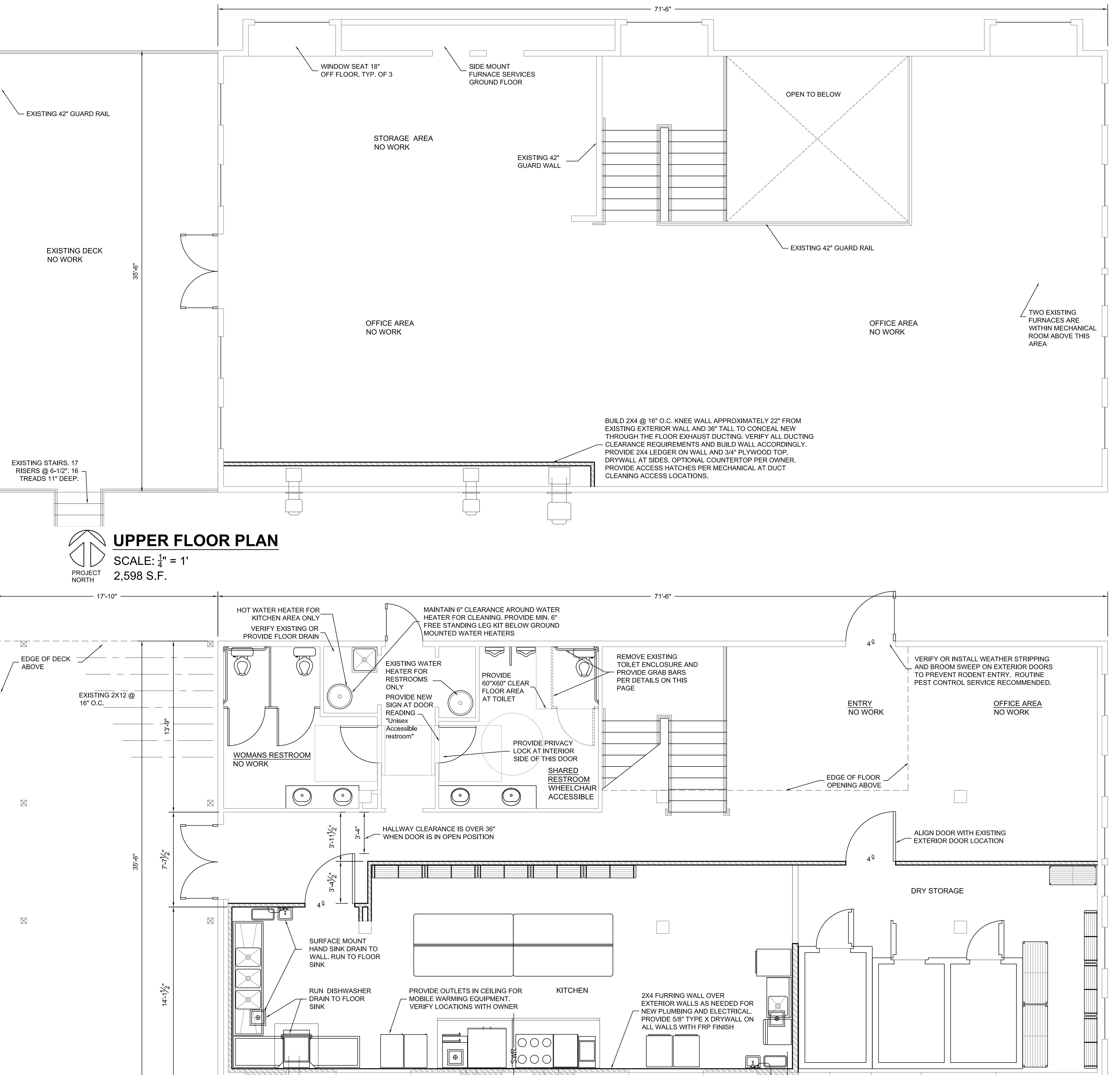
ACCESSIBLE TOILET GRAB BAR PLAN

SCALE: 1/2" = 1'



SLAB CUT PLAN

SCALE: 1/8" = 1'



MAIN FLOOR PLAN

SCALE: 1/4" = 1'
2,538 S.F.



FREEMAN
ARCHITECTS

PC

2024 Blue Mesa Court 80338

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LOVELAND, CO

Brookside Gardens
Barn Remodel

8

Berthoud, CO 80513

PROJECT NO.	DRAWN	David
REVISIONS	CHECKED	JF

Construction Drawings
SHEET A2 OF 4

KITCHEN DETAILS

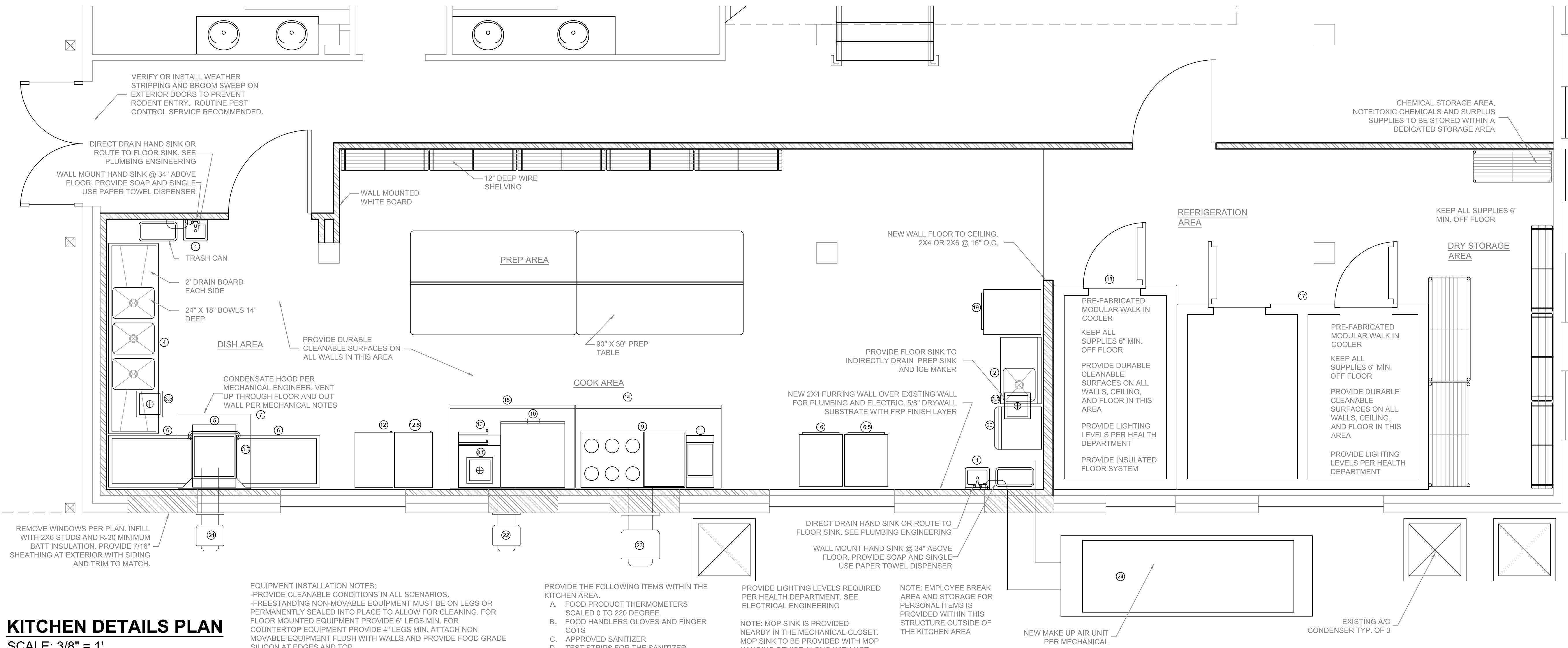


ITEM NUM.	ITEM DESCRIPTION	EQUIP. SIZE	MANUFACTURER	MODEL NUM.	QUANT.	MOUNTING	POWER
SINKS							
1	STAINLESS STEEL OR PORCELAIN HAND SINK	14"W x 10"D	BK Resources	BKHS-D-1410-P-G	2	WALL	--
2	VEGGIE PREP SINK	38.5"x 24"	BK Resources Model	BKS-1-24-14-24L	1	FLOOR	--
3	MOP SINK	24"x24"X14"D	NEW -FIAT	FIAT MSBID2424	1	FLOOR	--
3.5	FLOOR SINK	24"x24"X14"D	NEW -ZURN	Z1212	3	FLOOR	--
WARE WASHING							
4	3-COMPARTMENT SINK	110"Wx 29"	ALREADY OWN	NONE	1	FLOOR	--
5	DISH WASHER	24"W X 36" D	ALREADY OWN. BRAND- CLEAN FORCE	AF 3DS	1	FLOOR	
6	DISHWASHER OUT-FEED TABLES	48"W X 30"D	ALREADY OWN	NONE	2	FLOOR	
7	DISHWASHER CONDENSATE HOOD	48"W X 46"D	ALREADY OWN	-	1	FLOOR	
8	HOT WATER HEATERS	32" ROUND 5' T	PER MECHANICAL	SEE MECH SHEETS	2	FLOOR	
COOKING							
9	6 BURNER COOKTOP WITH 24" FLAT TOP	60"W x 32"D	VULCAN	SX 60F-6B24 GN	1	FLOOR	--
10	DOUBLE STACK CONVECTION OVEN	38"W x 37"D	BLODGETT	SHO 100 -G	1	FLOOR	
11	FRYER	16"W x 30"D	SUPERIOR	LG400-5	1	FLOOR	--
12	COOK AND HOLD UNIT	22"W x 32"D	ALREADY OWN. BRAND- ALTO SHAAM	1000 THTT	1	FLOOR	
12.5	COOK AND HOLD UNIT	22"W x 32"D	ALREADY OWN. BRAND- ALTO SHAAM		1	FLOOR	
13	STEAMER	24"W x 32"D	ALREADY OWN. - MARKET FORGE 9200 CTE		1	FLOOR	
14	TYPE 1 HOOD	110"W x 48"D	PER MECHANICAL PLANS		1		
15	CONDENSATE HOOD	58"W x 48"D	ALREADY OWN		1		
16	FOOD WARMER	25"W x 30"D	ALREADY OWN. BRAND- VULCAN		1		
16.5	FOOD WARMER	25"W x 30"D	ALREADY OWN. BRAND- HOT FOOD BOX INC		1		

ITEM NUM.	ITEM DESCRIPTION	EQUIP. SIZE	MANUFACTURER	MODEL NUM.	QUANT.	OUNTING	POWER
REFRIGERATION / FREEZERS							
17	WALK-IN COOLER / FREEZER	12'-1"W x 8'-11"D	ALREADY OWN NORLAKE		1	FLOOR	
18	WALK-IN COOLER	5'-11" W X 9'-10"D	ALREADY OWN CCI		1	FLOOR	
19	FREE STANDING REFRIGERATOR	26"W x 33"D	ALREADY OWN		1	FLOOR	
20	ICE MACHINE	24.5"W x 27"D	ICE O MATIC		1	FLOOR	
EXHAUST / MAKE-UP AIR							
21	DISHWASHER EXHAUST AIR		PER MECHANICAL		1	WALL	SEE M SHEETS
22	STEAMER EXHAUST AIR		PER MECHANICAL		1	WALL	SEE M SHEETS
23	TYPE 1 HOOD EXHAUST AIR		PER MECHANICAL		1	WALL	SEE M SHEETS
24	MAKE-UP AIR UNIT		PER MECHANICAL		1	GROUND	SEE M SHEETS

REFLECTED CEILING PLAN

SCALE: 1/4" = 1'



KITCHEN DETAILS PLAN

SCALE: 3/8" = 1'

FERRETTI ARCHITECTS

2024 Blue Mesa Court 80538 (970) 667-3939
P.C.

LOVELAND, CO FAX: (970) 667-3940

Brookside Gardens

Barn Remodel

619 E. County Road 8

Berthoud, CO 80513

ELEVATIONS

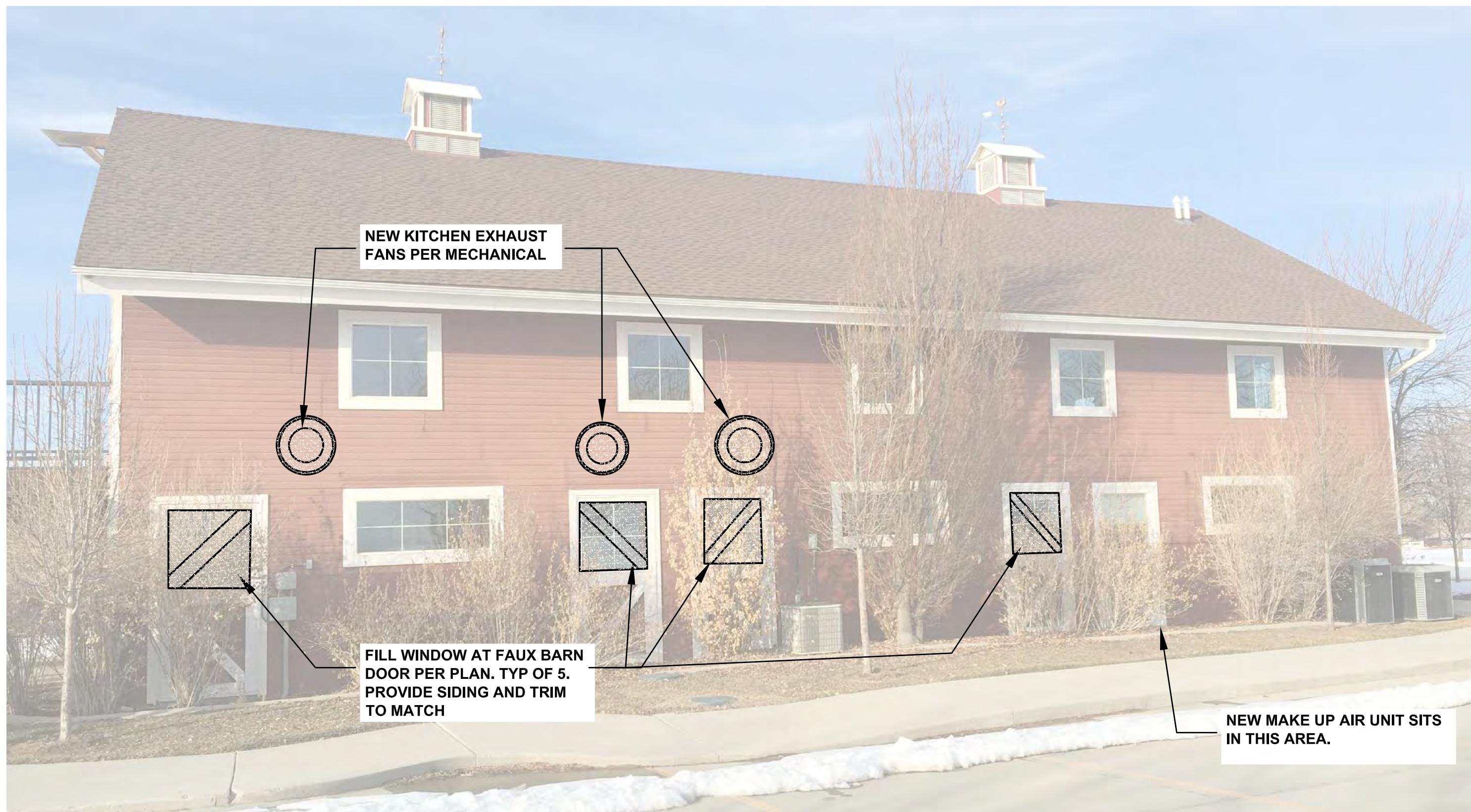
ELEVATION NOTES: PHOTOS OF THE EXISTING STRUCTURE ARE BEING SHOWN TO ACCURATELY DEPICT THE CURRENT CONDITIONS. CHANGES ARE PROPOSED TO THE SOUTH ELEVATION TO REMOVE 5 WINDOWS PER PLAN AND FILL WITH SIDING AND TRIM TO MATCH

NORTH ELEVATION

NOT TO SCALE
NO WORK PROPOSED

EAST ELEVATION

NOT TO SCALE
NO WORK PROPOSED



SOUTH ELEVATION

NOT TO SCALE



WEST ELEVATION

NOT TO SCALE
NO WORK PROPOSED

Construction Documents

GENERAL MECHANICAL REQUIREMENTS:

CODES AND PERMITS

WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES, REGULATIONS AND ORDINANCES. PERMITS NECESSARY FOR PERFORMANCE OF WORK SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR.

DRAWINGS AND COORDINATION

DRAWINGS FOR MECHANICAL WORK ARE DIAGRAMMATIC IN NATURE, AND ARE NOT INTENDED TO BE SCALED FOR EXACT MEASUREMENTS NOR TO SERVE AS SHOP DRAWINGS. CHANGES FROM THE PLANS MADE WITHOUT CONSENT OF THE ENGINEER SHALL RELIEVE THE ENGINEER OF RESPONSIBILITY FOR ALL CONSEQUENCES ARRIVING OUT OF SUCH CHANGES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. WHERE CONDITIONS REQUIRE REASONABLE CHANGES TO THOSE INDICATED ON THE DRAWINGS, MAKE SUCH CHANGES WITHOUT ADDITIONAL COST TO THE OWNER. COORDINATE ALL WORK WITH OTHER TRADES.

WARRANTY

WORKMANSHIP, MATERIALS, EQUIPMENT AND PROPER OPERATION SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE FROM THE OWNER. INITIAL ACCEPTANCE OF WORK SHALL NOT WAIVE THIS GUARANTEE. THIS GUARANTEE SHALL NOT INCLUDE NORMAL MAINTENANCE REQUIRED BY THE OWNER AS DESCRIBED IN EQUIPMENT OPERATION AND MAINTENANCE MANUALS.

SUBMITTALS

CONTRACTOR SHALL SUBMIT TO THE ARCHITECT/ENGINEER A MINIMUM OF (5) COPIES OF SUBMITTAL BROCHURES FOR REVIEW. PROVIDE INFORMATION ON ALL MAJOR EQUIPMENT AS LISTED ON DRAWING EQUIPMENT SCHEDULES, AS WELL AS VALVES, DUCTWORK ACCESSORIES AND TEMPERATURE CONTROL DIAGRAMS AS APPROPRIATE.

OPERATION AND MAINTENANCE MANUALS

CONTRACTOR SHALL FURNISH AT THE COMPLETION OF THE PROJECT (2) COPIES OF COMPLETE OPERATION AND MAINTENANCE MANUALS TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO TURNOVER TO OWNER. MANUALS TO BE BOUND AND INCLUDE INSTALLATION INSTRUCTIONS, REPLACEMENT PARTS LISTS AND MAINTENANCE INFORMATION ON ALL EQUIPMENT AS DESCRIBED IN THE SUBMITTALS SECTION. COMPLETED OPERATION AND MAINTENANCE MANUALS ARE TO BE FORWARDED TO THE OWNER WITHIN 90 DAYS AFTER OWNER BUILDING ACCEPTANCE.

PRODUCT SUBSTITUTIONS

MANUFACTURER MODEL NUMBERS LISTED ON THE DRAWINGS AND/OR SPECIFICATIONS ARE TO BE CONSIDERED AS THE BASIS OF DESIGN. WHERE TWO OR MORE ALTERNATE MANUFACTURERS OR MATERIALS ARE LISTED, THE CHOICE OF THESE SHALL BE OPTIONAL WITH THE CONTRACTOR. PRIOR TO THE AWARDING OF THE CONTRACT, CONTRACTOR MAY REQUEST A PROPOSED SUBSTITUTION OF MATERIALS IN WRITING TO THE ARCHITECT/ENGINEER NO LATER THAN SEVEN DAYS PRIOR TO THE RECEIPT OF BIDS. THE COST OF ANY CHANGES REQUIRED BY OTHER TRADES, INCLUDING A/E DESIGN, DUE TO THE USE OF EQUIPMENT AND/OR MATERIALS OTHER THAN THAT OF THE BASIS OF DESIGN SHALL BE PAID BY THE CONTRACTOR.

RECORD DRAWINGS

CONTRACTORS SHALL MAINTAIN A COMPLETE AND ACCURATE SET OF MARKED UP DRAWINGS SHOWING ACTUAL LOCATIONS OF INSTALLED WORK. THESE DRAWINGS ARE TO BE FORWARDED TO THE OWNER AS PART OF THE OPERATION AND MAINTENANCE MANUALS AT THE COMPLETION OF THE PROJECT.

ACCESS DOORS

PROVIDE ALL ACCESS DOORS/PANELS AS REQUIRED FOR ACCESS TO VALVES, DAMPERS, CONTROL DEVICES, FILTERS AND ANY OTHER ITEMS FOR WHICH ACCESS IS REQUIRED FOR EITHER OPERATION OR SERVICING. WHERE ACCESS DOORS ARE TO BE INSTALLED IN ASSEMBLIES REQUIRED TO HAVE A SPECIFIC FIRE RATING, ACCESS DOORS SHALL ALSO BE FIRE RATED.

PIPE AND DUCTWORK SEALANT THROUGH RATED ASSEMBLIES

PENETRATIONS SHALL BE SEALED AS REQUIRED IN ACCORDANCE WITH BUILDING AND MECHANICAL CODES TO RESIST THE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION IN ORDER TO MAINTAIN THE RESISTANCE RATING OF THE CONSTRUCTION BEING PENETRATED.

PROTECTION OF MATERIALS AND EQUIPMENT

CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL WORK, MATERIALS, AND EQUIPMENT PROVIDED UNDER THIS SECTION. PIPE OPENINGS SHALL BE CLOSED WITH CAPS OR PLUGS TO PREVENT THE ENTRANCE OF DEBRIS DURING CONSTRUCTION. ALL DUCTWORK OPENINGS SHALL BE SEALED CLOSED DURING CONSTRUCTION.

EQUIPMENT AND PIPING IDENTIFICATION

PROVIDE EQUIPMENT LABELS FOR ALL MAJOR EQUIPMENT, INCLUDING BUT NOT LIMITED TO AIR HANDLING SYSTEMS, FANS, VAV BOXES, CONTROLS, DAMPERS, CONTROL VALVES AND PUMPS. PROVIDE PIPE MARKERS ON CW, HW AND HWC SYSTEMS. LABELS TO BE AT MAXIMUM 8 FEET APART, WITH FLOW DIRECTION INDICATED, AS APPLICABLE.

ADDITIONALLY, PROVIDE LABELING ON POTABLE WATER MANIFOLDS INDICATING PLUMBING FIXTURE SERVED BY THE OUTLET, AS APPLICABLE. LABELS SHALL BE AFFIXED OR ADHERED PERMANENTLY TO EQUIPMENT. EQUIPMENT INSTALLED INDOORS TO BE LABELED WITH ENBOSSING TAPE.

EQUIPMENT INSTALLED OUTDOORS TO BE LABELED WITH ENGRAVED PLASTIC LAMINATE SIGNS. PIPE MARKERS TO BE SELF-ADHESIVE, MANUFACTURED FOR SUCH PURPOSE.

STARTERS AND DISCONNECTS

EQUIPMENT STARTERS SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR. EQUIPMENT DISCONNECTS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE ON THE DRAWINGS. STARTERS SHALL BE NEMA TYPE, AND SHALL INCLUDE PHASE MONITORING FOR MOTORS 5 HP AND LARGER.

TESTING

TESTING SHALL BE PERFORMED ON THE FOLLOWING SYSTEMS SPECIFIED. ALL SYSTEMS LISTED MAY NOT BE INCLUDED IN PROJECT. REFER TO DRAWINGS FOR APPLICABLE SYSTEMS.

SOIL, WASTE AND STORM DRAINAGE PIPING SHALL BE TESTED IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODES.

DOMESTIC WATER PIPING SHALL BE TESTED AND PROVEN WATERTIGHT UNDER A PRESSURE NOT LESS THAN THE WORKING PRESSURE OF THE SYSTEM FOR A 24 HOUR PERIOD.

DOMESTIC WATER PIPING SYSTEM SHALL BE CHLORINATED AND STERILIZED IN ACCORDANCE WITH REQUIREMENTS OF LOCAL JURISDICTION.

NATURAL GAS PIPING SHALL BE TESTED WITH AN AIR PRESSURE OF MINIMUM TWO TIMES THE DESIGN SYSTEM PRESSURE, BUT NO LESS THAN 3 PSIG, FOR A PERIOD OF 24 HOURS WITHOUT PRESSURE DROP.

BALANCING

SYSTEM BALANCING SHALL BE PERFORMED BY A CERTIFIED BALANCING CONTRACTOR. BALANCE ALL SYSTEMS INCLUDING AIRFLOW TO AND FROM ALL OPENINGS, AND PUMPED WATER SYSTEMS INCLUDING DOMESTIC WATER RECIRCULATION SYSTEMS AS APPLICABLE. MAKE ANY ADJUSTMENTS NECESSARY TO RESULT IN CONDITIONS INDICATED AND PROVIDE READJUSTMENTS TO ITEMS IN REPORT AS MAY BE REQUESTED BY ARCHITECT/ENGINEER. SUBMIT TWO COPIES OF TEST AND BALANCE REPORT FOR APPROVAL. FAN AND PUMP SYSTEMS TO BE BALANCED WITHIN PLUS OR MINUS 5 PERCENT OF LISTED VALUES. AIR INLETS AND OUTLETS TO BE BALANCED WITHIN PLUS 10 PERCENT OR MINUS 5 PERCENT OF LISTED VALUES. BALANCE REPORT TO INCLUDE:

UNIT IDENTIFICATION

MANUFACTURER AND NAMEPLATE DATA
EQUIPMENT NAMEPLATE AMPERAGE AND ACTUAL AMPERAGE
RPM (DESIGN AND ACTUAL)

FAN CFM (DESIGN AND ACTUAL)

FAN STATIC PRESSURE (DESIGN AND ACTUAL)

PUMP GPM (DESIGN AND ACTUAL)

PUMP DISCHARGE AND SUCTION PRESSURE

REGISTER, GRILLE, DIFFUSER REFERENCE NUMBER AND LOCATION

INLET/OUTLET CFM (DESIGN AND ACTUAL)

FLOW DEVICE PRESSURE DROP, CFM OR GPM

A FINAL BALANCING REPORT SHALL BE PROVIDED TO THE OWNER AFTER COMPLETION OF THE PROJECT.

CLEANING

AT THE COMPLETION OF WORK, ALL FIXTURES AND EQUIPMENT SHALL BE THOROUGHLY CLEANED AND DELIVERED IN A CONDITION SATISFACTORY TO THE ARCHITECT. ALL FILTERS SHALL BE REPLACED WITH NEW PRIOR TO OWNER ACCEPTANCE OF THE BUILDING.

GENERAL PLUMBING NOTES:

- PLUMBING WORK SHALL COMPLY WITH ALL APPLICABLE CODES. VERIFY ALL REQUIREMENTS PRIOR TO SUBMITTING BID OR COMMENCING WORK. THE PLUMBING DESIGN IS BASED ON THE 2018 INTERNATIONAL PLUMBING CODE.
- WASTE AND VENT PIPING BELOW SLAB SHALL BE SCHEDULE 40, DWV, PVC, PLASTIC. FITTINGS SHALL BE PVC.
- WASTE AND VENT PIPING ABOVE SLAB SHALL BE SCHEDULE 40, DWV, PVC, PLASTIC. FITTINGS SHALL BE PVC.
- POTABLE WATER PIPING ABOVE GRADE SHALL BE TYPE L COPPER WITH SOLDERED COPPER FITTINGS AND NO LEAD SOLDER UNLESS NOTED OTHERWISE.
- CONTRACTOR OPTION: POTABLE WATER PIPING 2" AND SMALLER SHALL BE PEX-A TUBING MANUFACTURED BY UPONOR/WISBRO OR APPROVED EQUAL. FITTINGS SHALL BE EXPANSION TYPE WITH SECONDARY EXPANSION RING (NOT CRIMPED). CW SHALL BE RUN IN BLUE PIPE, HW AND HWC IN RED, OTHER SYSTEMS CLEAR. PIPING SHALL BE PROPERLY SUPPORTED USING PLENUM RATED GALVANIZED TROUGHS OR CHANNELS HUNG AT A MAXIMUM OF 8' INTERVALS. UNSUPPORTED PEX SHALL NOT EXCEED 32'.
- POTABLE WATER VALVES SHALL BE FULL PORT, BALL TYPE.
- HANGERS FOR 2" AND SMALLER PIPE SHALL BE BAND TYPE, 2.5" AND LARGER SHALL BE CLEVIS TYPE. USE COPPER COATED TYPE ON COPPER PIPE.
- GAS PIPE 2" AND SMALLER SHALL BE SCHEDULE 40 BLACK STEEL. FITTINGS SHALL BE MALLEABLE SCREW TYPE.
- INSTALL UNION, GAS COCK AND FULL SIZE 6" LONG DIRT LEG FOR ALL GAS FIRED EQUIPMENT.
- FURNISH AND INSTALL WATTS 9D-M2 0.75" BACKFLOW PREVENTION DEVICE FOR ICE MACHINES AND STEAMER EQUIPMENT. INSTALL 0.75" DRAIN AND TERMINATE TO FLOOR SINK WITH FULL AIR GAP.
- FURNISH AND INSTALL WATTS SD-3 LEAD FREE DUAL CHECK BACKFLOW PREVENTION DEVICE WITH AIR GAP FOR COFFEE URN AND TEA DISPENSERS.

PLUMBING LEGEND:

CW	COLD WATER PIPING	5	BALL VALVE
HW	HOT WATER PIPING	6	GATE VALVE
HWC	HOT WATER CIRC.	7	GAS COCK
TW	TEMPERED WATER	8	PRESS. RED. VALVE
V	VENT PIPING	9	T & P RELIEF VALVE
W	WASTE PIPING	10	SOLENOID VALVE
GW	GREASE WASTE PIPING	11	BALANCE VALVE
CD	CONDENSATE PIPING	12	CHECK VALVE
G	NATURAL GAS PIPING	13	UNION
—	PIPE ELBOW DOWN	14	FLOOR CLEANOUT
—	PIPE ELBOW UP	15	GRADE CLEANOUT
—	PIPE TEE UP	16	WALL CLEANOUT
—	PIPE TEE DOWN	17	PIPE TO BE REMOVED
—	PIPE CAP	18	I.E. INVERT ELEVATION
(R)	RELOCATE	(N)	NEW
		(E)	EXISTING

HVAC LEGEND:

RECT DUCT (NEW SHADED/EXISTING UNSHADE)
ROUND DUCT (NEW SHADED/EXISTING UNSHADE)
RECT DUCT SIZE CHANGE
RECT DUCT CHANGE TO ROUND
RECT ELBOW UP (SUPPLY)
RECT ELBOW UP (NON-SUPPLY)
RECT ELBOW DOWN (SUPPLY)
RECT ELBOW DOWN (NON-SUPPLY)
ROUND ELBOW UP
ROUND ELBOW DOWN
RECT ELBOW W/ TURNING VANES
ROUND ELBOW
ROUND TAKE-OFF W/ DAMPER FROM RECT MAIN
ROUND TAKE-OFF W/ DAMPER FROM ROUND MAIN
RECT TAKE-OFF W/ DAMPER FROM RECT MAIN
RECT TAKE-OFF W/ DAMPER FROM ROUND MAIN
DIFFUSER WITH FLEX DUCT
RETURN GRILLE (UNDUCTED)
RETURN/EXHAUST GRILLE (DUCTED)
AIRFLOW PATTERNS
THERMOSTAT WITH ZONE TAG
SENSOR WITH ZONE TAG

GENERAL HVAC NOTES:

- MECHANICAL WORK SHALL COMPLY WITH ALL APPLICABLE CODES. VERIFY ALL REQUIREMENTS PRIOR TO SUBMITTING BID OR COMMENCING WORK. THE MECHANICAL DESIGN IS BASED ON THE 2018 INTERNATIONAL MECHANICAL CODE.
- ALL DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL - CONSTRUCTION AND INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF SMACNA OR AS REQUIRED BY ALL APPLICABLE CODES.
- CONSTRUCT ALL SUPPLY AND RETURN DUCTWORK TO SMACNA 2" PRESSURE CLASS.
- CONSTRUCT ALL EXHAUST DUCTWORK TO SMACNA 1" PRESSURE CLASS.
- DIMENSIONS OF DUCTWORK SHOWN INDICATES CLEAR INSIDE DIMENSIONS - WHERE DUCT LINER IS TO BE ADDED, INCREASE THE SIZE OF SHEET METAL ACCORDINGLY.
- MAINTAIN A MINIMUM 10'-0" SEPARATION FROM OUTSIDE AIR INTAKES TO EXHAUST TERMINATIONS AND PLUMBING VENTS.
- MAINTAIN A MINIMUM 3'-0" SEPARATION FROM EXHAUST TERMINATIONS TO OPERABLE WINDOWS AND DOORS.
- WALL MOUNTED THERMOSTATS AND SENSORS SHALL BE INSTALLED 48" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. THERMOSTATS AND SENSORS LOCATED ON EXTERIOR WALL SURFACES SHALL BE PROVIDED WITH AN INSULATED SUB-BASE.
- TEMPORARY HEATING: THE PERMANENT HVAC SYSTEM MAY NOT BE UTILIZED FOR HEATING UNTIL ALL GYPSUM WORK IS COMPLETED AND HAS BEEN PAINTED. IF THE PERMANENT HVAC SYSTEM IS UTILIZED DURING CONSTRUCTION, ALL DUCT INTAKES SHALL BE COVERED WITH FILTER MEDIA (MERV-8 RATING). IF EXCESSIVE DUST OR DEBRIS HAS ENTERED THE SYSTEM THEN ALL COIL AND DUCT SURFACES SHALL BE CLEANED. NEW FILTERS ARE TO BE PROVIDED JUST PRIOR TO TURNOVER TO OWNER. TEMPORARY HEATING OF THE BUILDING PRIOR TO ANY USE OF THE PERMANENT HVAC SYSTEM SHALL BE THE RESPONSIBILITY OF THE G.C.
- DISHWASHER HOOD EXHAUST DUCTWORK SHALL BE CONSTRUCTED OF ALUMINUM AND SEALED WATERTIGHT WITH SILICONE SEALANT.
- GREASE DUCTWORK (RECTANGULAR): DUCTWORK SHALL BE CONSTRUCTED OF STEEL OF NOT LESS THAN 16 GAUGE. JOINTS, SEAMS AND PENETRATIONS SHALL BE MADE WITH A CONTINUOUS LIQUID-TIGHT WELD OR BRAZE MADE ON THE EXTERNAL SURFACE OF THE DUCT SYSTEM. JOINTS, DUCT SLOPING AND CLEANOUTS SHALL BE IN ACCORDANCE WITH THE MECHANICAL CODE. PRIOR TO CONCEALMENT OF DUCT, A LEAKAGE TEST SHALL BE PERFORMED IN THE PRESENCE OF A CODE OFFICIAL.
- RECTANGULAR GREASE DUCTWORK INSULATION: PROVIDE TWO LAYERS OF BLANKET WRAP INSULATION WITH A MINIMUM NOMINAL THICKNESS OF 1.5" EACH, COMPOSED OF MINERAL WOOL FIBERS AND FIBERGLASS. BLANKET WRAP SHALL BE FULLY ENCAPSULATED WITH A POLYPROPYLENE/FOIL SCRIM. SYSTEM AND INSTALLATION SHALL COMPLY WITH REQUIREMENTS OF ASTM E 2336, LOCAL BUILDING CODES AND AUTHORITY HAVING JURISDICTION. 3M FIRE BARRIER DUCT WRAP 15A OR APPROVED.

ENERGY CODE/INSULATION NOTES:

- THE MECHANICAL DESIGN IS BASED ON THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE.
- ALL SUPPLY, RETURN AND EXHAUST DUCTWORK SHALL BE SEALED AIRTIGHT WITH DUCT SEALANT ALONG ALL SEAMS AND JOINTS.
- ALL CONCEALED ROUND SUPPLY DUCTWORK SHALL BE WRAPPED WITH 1.5" THICK FIBERGLASS INSULATION WITH FOIL SCRIM VAPOR BARRIER JACKET, MINIMUM R-6.
- ALL RECTANGULAR MAKE-UP AIR UNIT DUCTWORK INSTALLED INDOORS SHALL BE WRAPPED WITH 1.5" THICK FIBERGLASS INSULATION WITH FOIL SCRIM VAPOR BARRIER JACKET, MINIMUM R-6. NO DUCT LINER ALLOWED.
- ALL RECTANGULAR MAKE-UP AIR UNIT DUCTWORK INSTALLED OUTDOORS SHALL BE DOUBLE-WALL SHEET METAL DUCTWORK CONSTRUCTED WITH 2" THICK, R-12 INSULATION INNER LAYER. NO DUCT LINER ALLOWED.
- HOT WATER PIPING SHALL BE INSULATED USING FIBERGLASS INSULATION WITH ALL SERVICE JACKET HAVING MAXIMUM 'K' FACTOR OF 0.27. INSULATION THICKNESS SHALL BE 1".
- HOT WATER RECIRCULATION PIPING SHALL BE INSULATED FIBERGLASS INSULATION WITH ALL SERVICE JACKET HAVING MAXIMUM 'K' FACTOR OF 0.27. INSULATION THICKNESS SHALL BE 1".
- COLD WATER PIPING SHALL BE INSULATED USING FIBERGLASS INSULATION WITH ALL SERVICE JACKET HAVING MAXIMUM 'K' FACTOR OF 0.27. INSULATION THICKNESS SHALL BE 0.5".

MECHANICAL DRAWING INDEX

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M7.1			
M8.1			
M8.2			
M8.3			
M8.4			
M8.5			
P1.1			
P2.1			
P6.1			

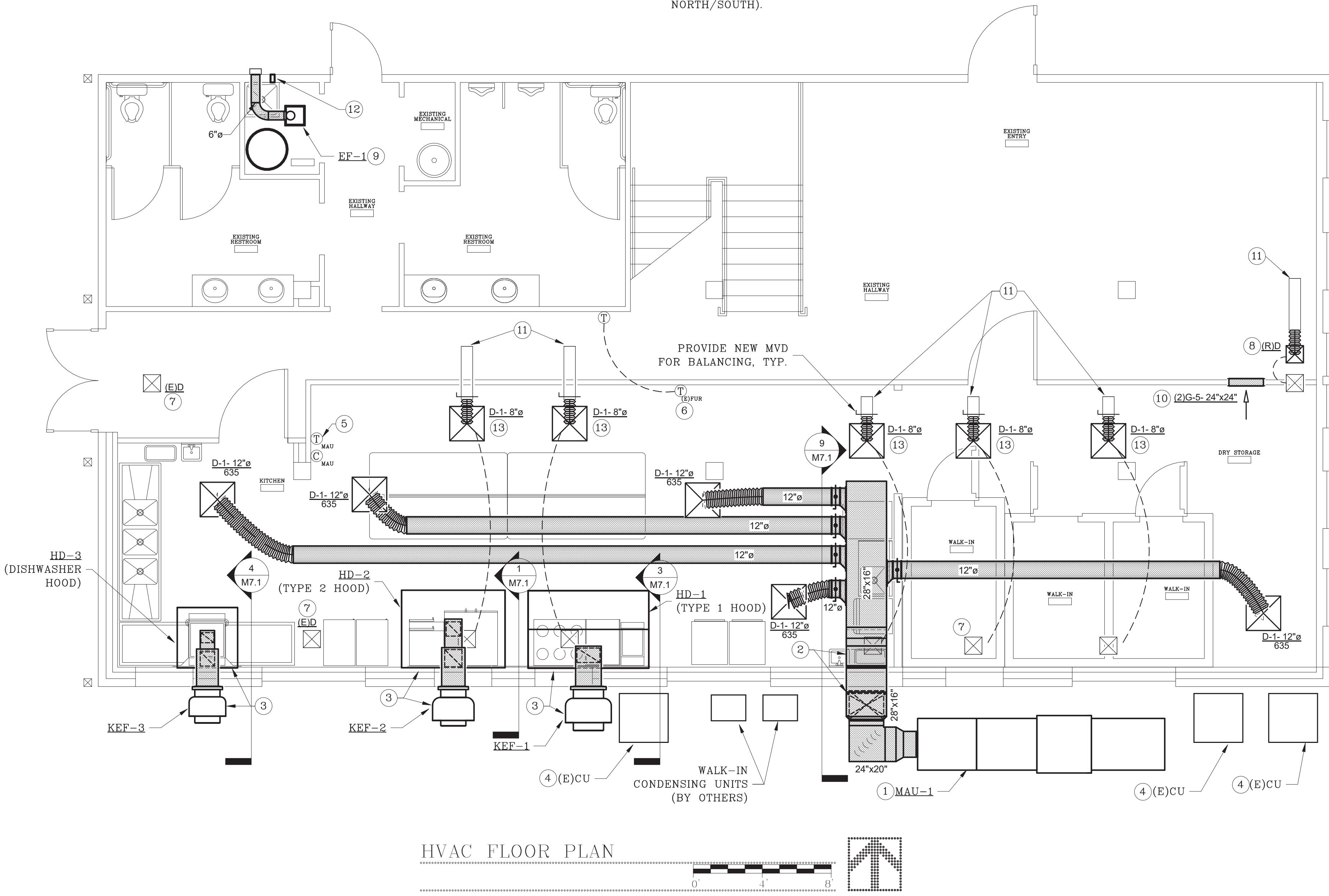
MECHANICAL GENERAL NOTES, LEGENDS AND DRAWING INDEX

Construction Documents

MPO.1

FLAG NOTES:

- ① NEW GRADE MOUNTED MAKE-UP AIR UNIT TO BE INSTALLED ON CONCRETE LEVELING PAD. COORDINATE WITH GC FOR 3" THICK PAD TO BE INSTALLED AT MAU-1 INSTALLATION LOCATION. PAD SHALL EXTEND BEYOND THE FOOTPRINT OF THE MAU-1 CURB AND SUPPORT RAILS BY 3" IN ALL DIRECTIONS.
- ② ROUTE DUCTWORK UP EXTERIOR SIDE OF WALL AND INTO SPACE TIGHT TO BOTTOM OF HEADER AT REMOVED AND INFILLED WINDOW LOCATION. REFER TO SECTION INDICATED FOR MORE INFORMATION.
- ③ KITCHEN HOOD AND EXHAUST FAN SYSTEM INSTALLED ABOVE OWNER PROVIDED EQUIPMENT. REFER TO THE SECTION INDICATED FOR MORE DETAILS ON DUCTWORK ROUTING, SIZING, AND INSTALLATION REQUIREMENTS.
- ④ EXISTING CONDENSING UNITS SHALL REMAIN AS-IS. SHOWN FOR REFERENCE ONLY.
- ⑤ LOCATION OF NEW MAU-1 CONTROLLER AND REMOTE T-STAT. COORDINATE INSTALLATION LOCATION WITH GC/OWNER.
- ⑥ MC TO RELOCATE EXISTING FURNACE T-STAT TO LOCATION SHOWN. PROVIDE COVER PLATE AT LOCATION OF REMOVED THERMOSTAT. GC SHALL PAINT COVER PER OWNER. MC TO PROVIDE NEW CONTROL WIRING FOR RELOCATION AS NECESSARY.
- ⑦ EXISTING SUPPLY AIR DIFFUSER TO REMAIN AS-IS. SHOWN FOR REFERENCE ONLY.
- ⑧ RELOCATE EXISTING SUPPLY AIR DIFFUSER AS INDICATED. MC TO DEMO AND REMOVE LENGTH OF SUPPLY DUCTWORK WITHIN CEILING JOIST SPACE ABOVE AS NECESSARY TO ALIGN WITH NEW INSTALLATION LOCATION. PROVIDE NEW FLEX DUCTWORK CONNECTION MATCHING EXISTING DUCTWORK SIZE. LIMIT FLEX LENGTH TO MAX 3'-0" (DUCTWORK ASSUMED TO RUN WITHIN CEILING JOIST SPACE. FLOOR JOISTS ASSUMED TO RUN NORTH/SOUTH).
- ⑨ PROVIDE AND INSTALL EXHAUST FAN EXPOSED IN NEW JANITORS CLOSET. TERMINATE 6"Ø THROUGH EXTERIOR SIDEWALL WITH WALL CAP AND BIRD SCREEN. GC TO PAINT CAP PER OWNER/ARCHITECT.
- ⑩ PROVIDE (2)G-5-24"x24" GRILLES BACK-TO-BACK, LOW IN WALL FOR RETURN AIR PATH. BOTTOM OF GRILLE TO BE INSTALLED AT 0'-6" A.F.F. CENTRAL RETURN FOR (E)FUR IS LOCATED IN EXISTING ENTRY AREA.
- ⑪ EXISTING HORIZONTAL FURNACE IS LOCATED IN SECOND LEVEL MECHANICAL ROOM AND SHALL REMAIN AS-IS. NO REBALANCING IS REQUIRED AND THE ONLY MODIFICATIONS SHALL BE THE RELOCATION OF THE DIFFUSERS AS INDICATED.
- ⑫ MC TO DEMO EXISTING DRYER VENT IN THIS ROOM. COORDINATE WITH GC TO CAP AND SEAL WALL PENETRATION TO MATCH EXISTING.
- ⑬ MC TO TEST AND RECORD SUPPLY AIR FLOW VOLUME OF EXISTING DIFFUSER PRIOR TO REMOVAL DEMO AND REMOVE LENGTH OF SUPPLY DUCTWORK WITHIN CEILING JOIST SPACE ABOVE AS NECESSARY TO ALIGN WITH NEW DIFFUSER INSTALLATION LOCATION. PROVIDE NEW FLEX DUCTWORK AND NEW LAY-IN CEILING DIFFUSER AS INDICATED. MC TO CONFIRM EXISTING DUCTWORK SIZE AND MATCH DIFFUSER SIZE PRIOR TO ORDERING. BALANCE NEW DIFFUSER TO TESTED AND RECORDED AIR FLOW AT COMPLETION OF WORK. LIMIT FLEX LENGTH TO MAX 3'-0" (DUCTWORK ASSUMED TO RUN WITHIN CEILING JOIST SPACE. FLOOR JOISTS ASSUMED TO RUN NORTH/SOUTH).



PROJECT NO.	DRAWN J.M.	03/25/20
REVISIONS	CHECKED GNG	
JOB NUMBER: 20-040		

Construction Documents

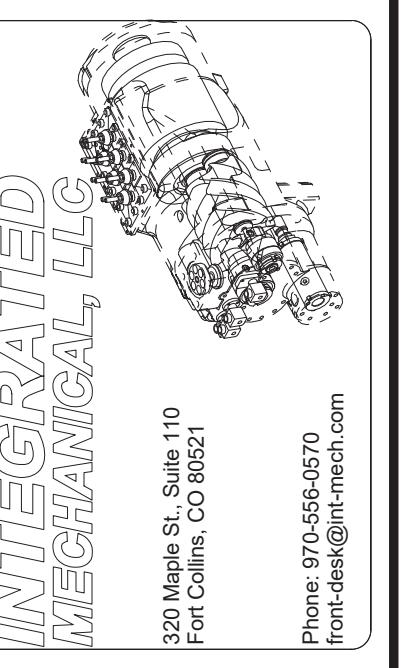
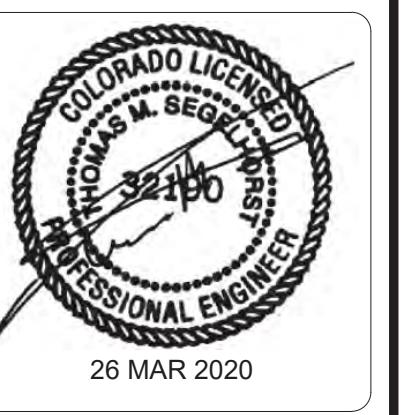
M2.1

FREEMAN
ARCHITECTS P.C.
2024 Blue Mesa Court, 80538
LOVELAND, CO

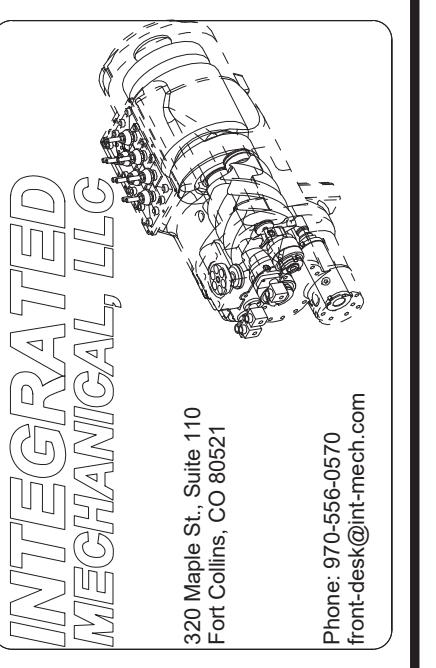
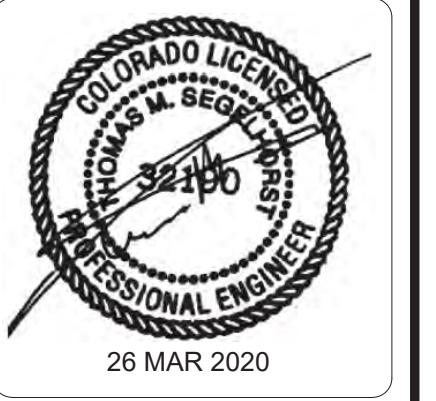
(970) 667-3939
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Brookside Gardens
Barn Remodel

619 E. County Road 8
Berthoud, CO 80513

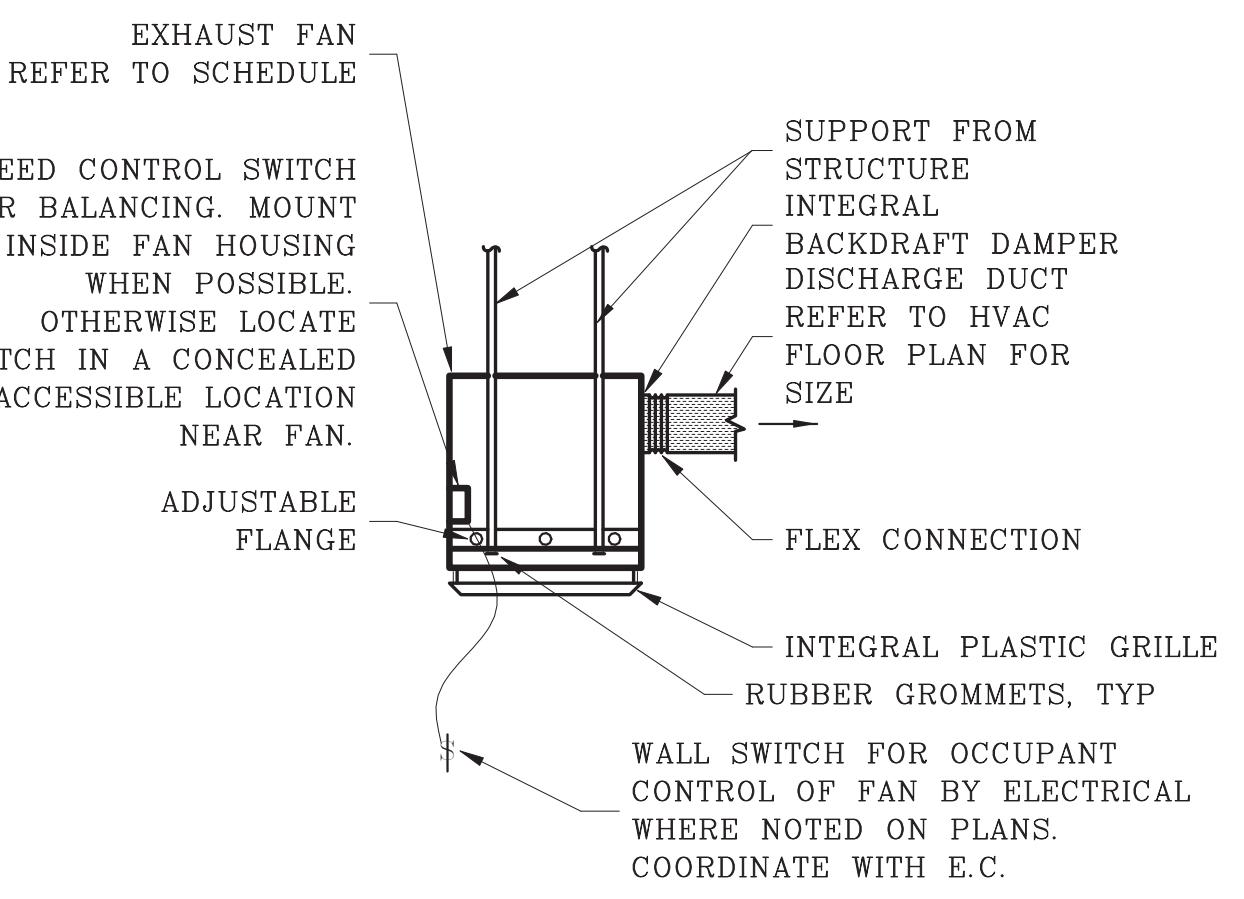
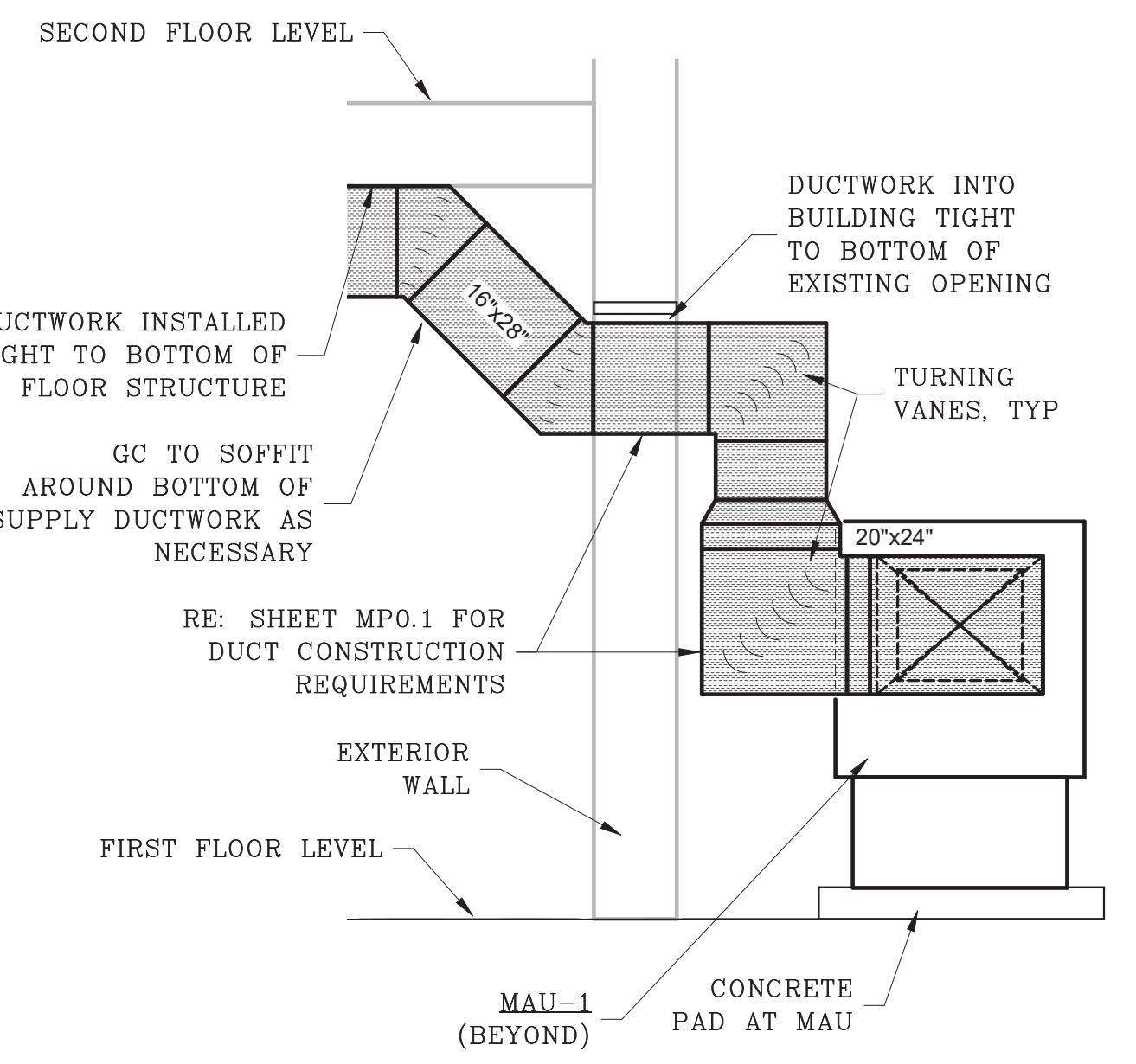
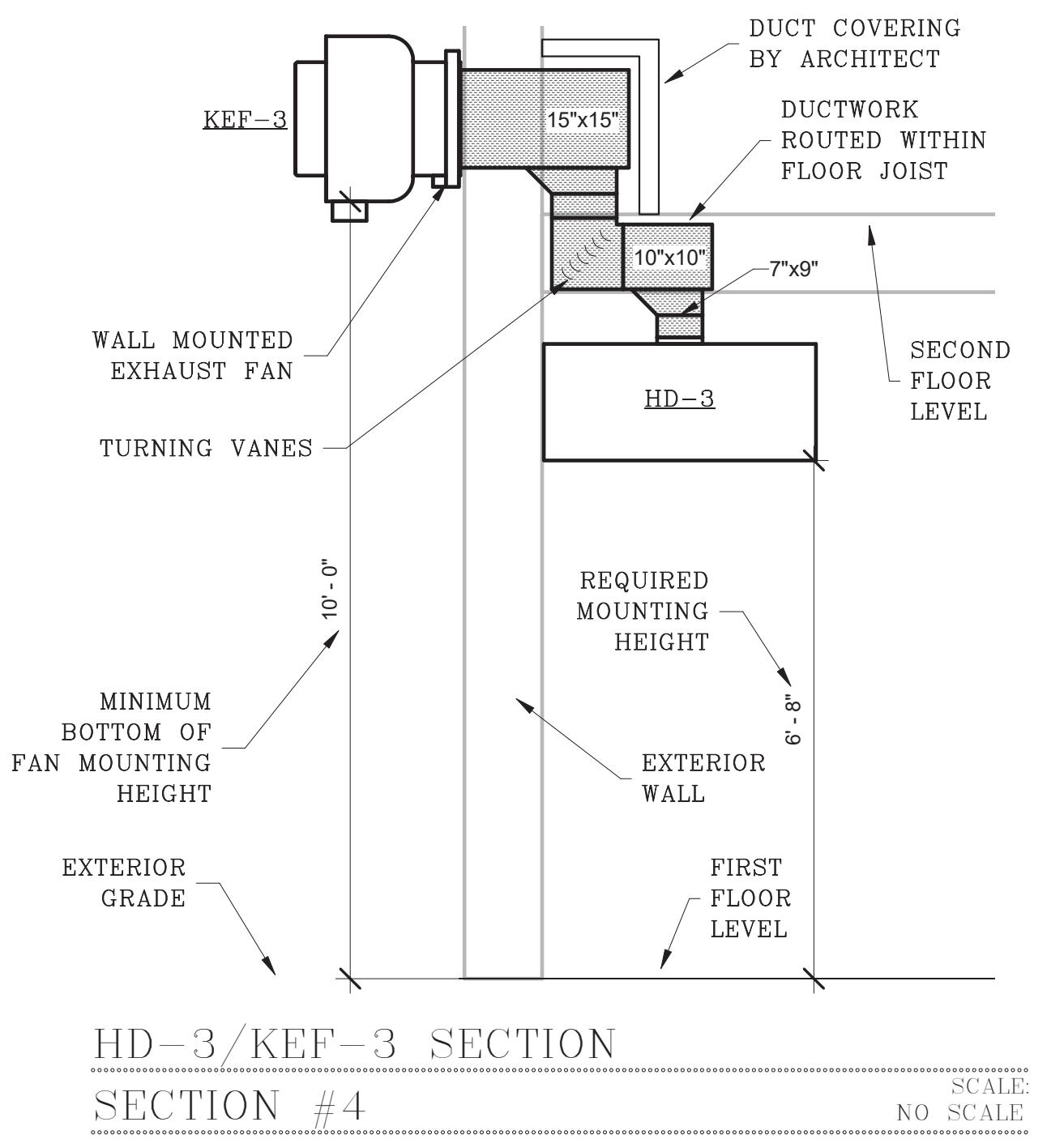
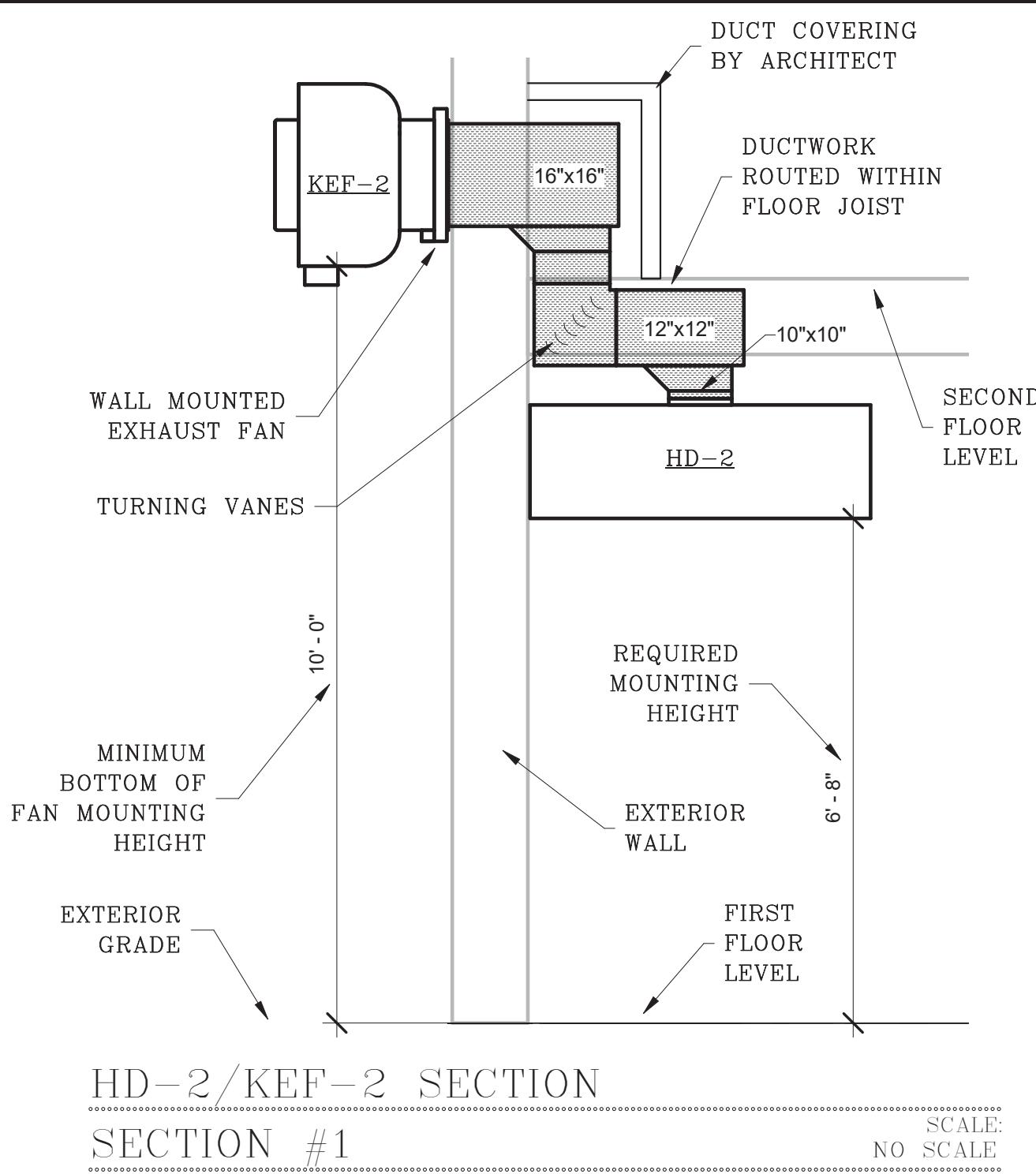
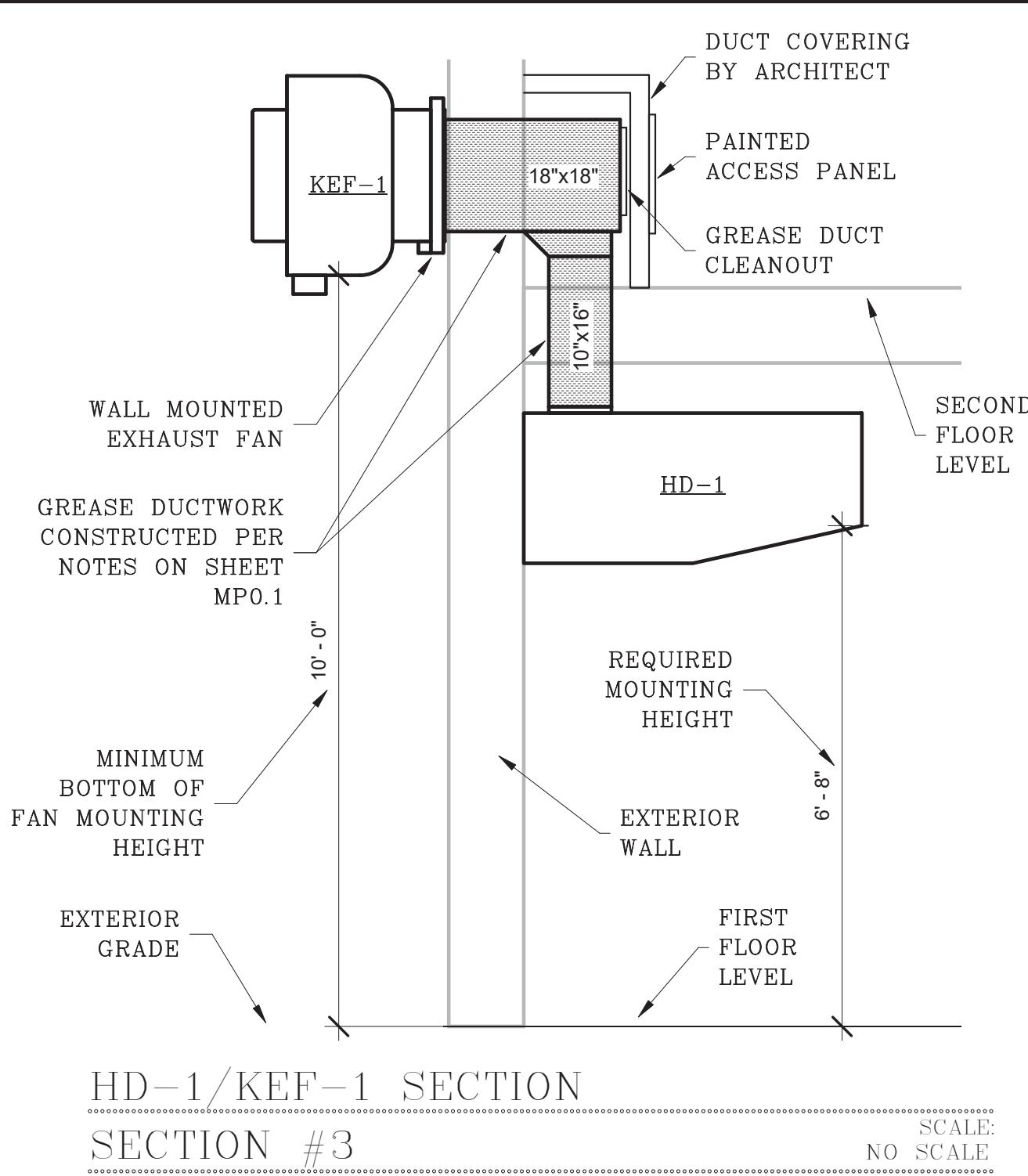


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Barn Remodel
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Berthoud, CO 80513



OUTSIDE AIR VENTILATION SCHEDULE (BASED ON ASHRAE 62.1-2016)												
ROOM	AREA [SF] (Az)	OCC DENSITY [#/1000SF]	NUMBER OF PEOPLE (Pz)	PEOPLE/OA RATE [CFM/PERSON] (Rp)	AREA OA [CFM/SF] (Ra)	OA [CFM] (Vbz-RpxPz+RaxAz)	BREATHING ZONE (Ez)	DISTRIBUTION EFFECTIVENESS (Vot=Vbz/Ez)	OA INTAKE [CFM] (385)	OA PROVIDED [CFM]	SYSTEM	
KITCHEN	1,119	20	23	7.5	0.12	307	0.8	385		3,180	MAU-1	

KITCHEN AIR BALANCE: EXHAUST: KEF-1 = 1,750 CFM / KEF-2 900 CFM / KEF-3 525 CFM. TOTAL EXHAUST = 3,175 SUPPLY: MAU-1 = 3,180 CFM. TOTAL SUPPLY = 3,180
THE KITCHEN IS 5 CFM POSITIVE UNDER DESIGN OPERATION - CATERING KITCHEN, AND NO DINING ROOM.

EXHAUST FAN SCHEDULE														
NUMBER	MAKE & MODEL NUMBER	TYPE	DUTY	CFM	FAN SPEED	EXT STATIC	MOTOR HP/W	SONES	DRIVE TYPE	SPEED CONTROL	GRILLE TYPE	HOUSING CONST	ELEC DATA	REMARKS
EF-1	COOK GC-146	CEILING CABINET EXHAUST	50	795 RPM	0.25"	27 W	1.3	DIRECT	YES	PLASTIC	GALV	(A)	120/1 (1) (2)	

(1) GRAVITY BACKDRAFT DAMPER (2) SPEED CONTROLLER MOUNTED AT FAN FOR PURPOSES OF BALANCING (A) CONTINUOUS OPERATION DURING OCCUPIED HOURS

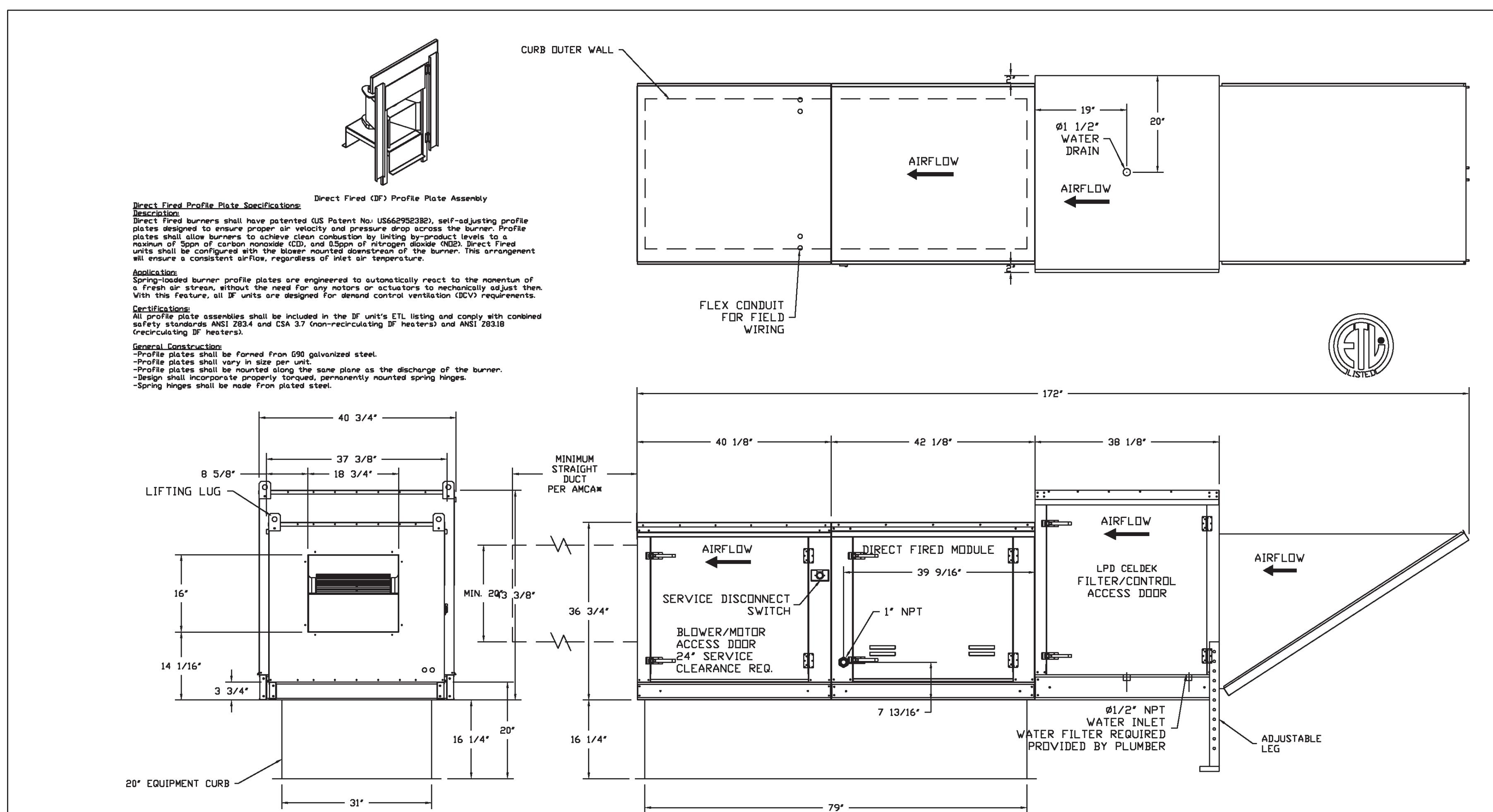
GRILLES, REGISTERS AND DIFFUSERS SCHEDULE APPROVED MANUFACTURERS: METALAIER, KRUEGER													
NUMBER	MAKE & MODEL NUMBER	DESCRIPTION	DUTY	COLOR	FRAME SIZE	NECK SIZE	FRAME TYPE	FRAME CONST	DAMPER	REMARKS			
D-1	TITUS PAR	PERFORATED SUPPLY DIFFUSER	SUPPLY	WHITE	24/24	12" Ø	LAY-IN	STEEL	NO	LAY-IN CEILING, SUPPLY APPLICATION			
D-2	TITUS OMNI-1	ARCHITECTURAL UNI-FLO DIFFUSER	SUPPLY	WHITE	24/24	SEE PLAN	SURFACE	STEEL	YES	WITH TRIM FRAME			
D-3	TITUS OMNI-1	ARCHITECTURAL UNI-FLO DIFFUSER	SUPPLY	WHITE	12/12	SEE PLAN	SURFACE	STEEL	YES	WITH TRIM FRAME			
D-4	TITUS 300RL-1	SIDEWALL SUPPLY DIFFUSER	SUPPLY	WHITE	SEE PLAN	SEE PLAN	SIDEWALL	STEEL	YES				
D-5	TITUS TDC-3	DIRECTIONAL DIFFUSER	SUPPLY	WHITE	24/24	SEE PLAN	LAY-IN	STEEL	NO	18x18 DUCT SIZE WITH ROUND NECK			
D-6	TITUS TDC-1	DIRECTIONAL DIFFUSER	SUPPLY	WHITE	NECK + 6"	SEE PLAN	SURFACE	STEEL	NO				
G-1	TITUS PAR-3	PERFORATED FACE GRILLE	RETURN	WHITE	24/24	22/22	LAY-IN	STEEL	NO				
G-2	TITUS PAR-3	PERFORATED FACE GRILLE	RETURN	WHITE	24/12	22/10	LAY-IN	STEEL	NO				
G-3	TITUS 355RLF	LOUVERED FACE FILTER GRILLE	RETURN	WHITE	NECK + 4"	SEE PLAN	SURFACE	STEEL	NO	WITH 1" FILTER TO MATCH NECK SIZE			
G-4	TITUS PAR-3	PERFORATED FACE GRILLE	RETURN	WHITE	24/12	22/10	SURFACE	STEEL	NO	WITH TRIM FRAME			
G-5	TITUS 350RL-1	LOUVERED FACE GRILLE	RETURN	WHITE	SEE PLAN	SEE PLAN	SURFACE	STEEL	NO				
G-6	TITUS T-700L	LOUVERED FACE DOOR GRILLE	RETURN	WHITE	NECK + 2"	SEE PLAN	SURFACE	STEEL	NO	WITH AUXILIARY FRAME/TRIM			
R-1	TITUS PAR-3	PERFORATED FACE REGISTER	RETURN/EXHAUST	WHITE	24/24	22/22	LAY-IN	STEEL	YES				
R-2	TITUS PAR-3	PERFORATED FACE REGISTER	RETURN/EXHAUST	WHITE	24/12	22/10	LAY-IN	STEEL	YES				
R-3	TITUS 8F-1	PERFORATED FACE REGISTER	RETURN/EXHAUST	WHITE	24/24	22/22	SURFACE	ALUM	YES				
R-4	TITUS 8F-1	PERFORATED FACE REGISTER	RETURN/EXHAUST	WHITE	12/12	10/10	SURFACE	ALUM	YES				
R-5	TITUS 350FL-1	LOUVERED FACE REGISTER	EXHAUST	WHITE	SEE PLAN	SEE PLAN	SURFACE	ALUM	YES				

HVAC SCHEDULES AND DETAILS

PROJECT NO.	DRAWN J.M. 03/25/20	CHECKED GNG	REVISIONS
JOB NUMBER: 20-040			

Construction Documents

M7.1



REVISIONS

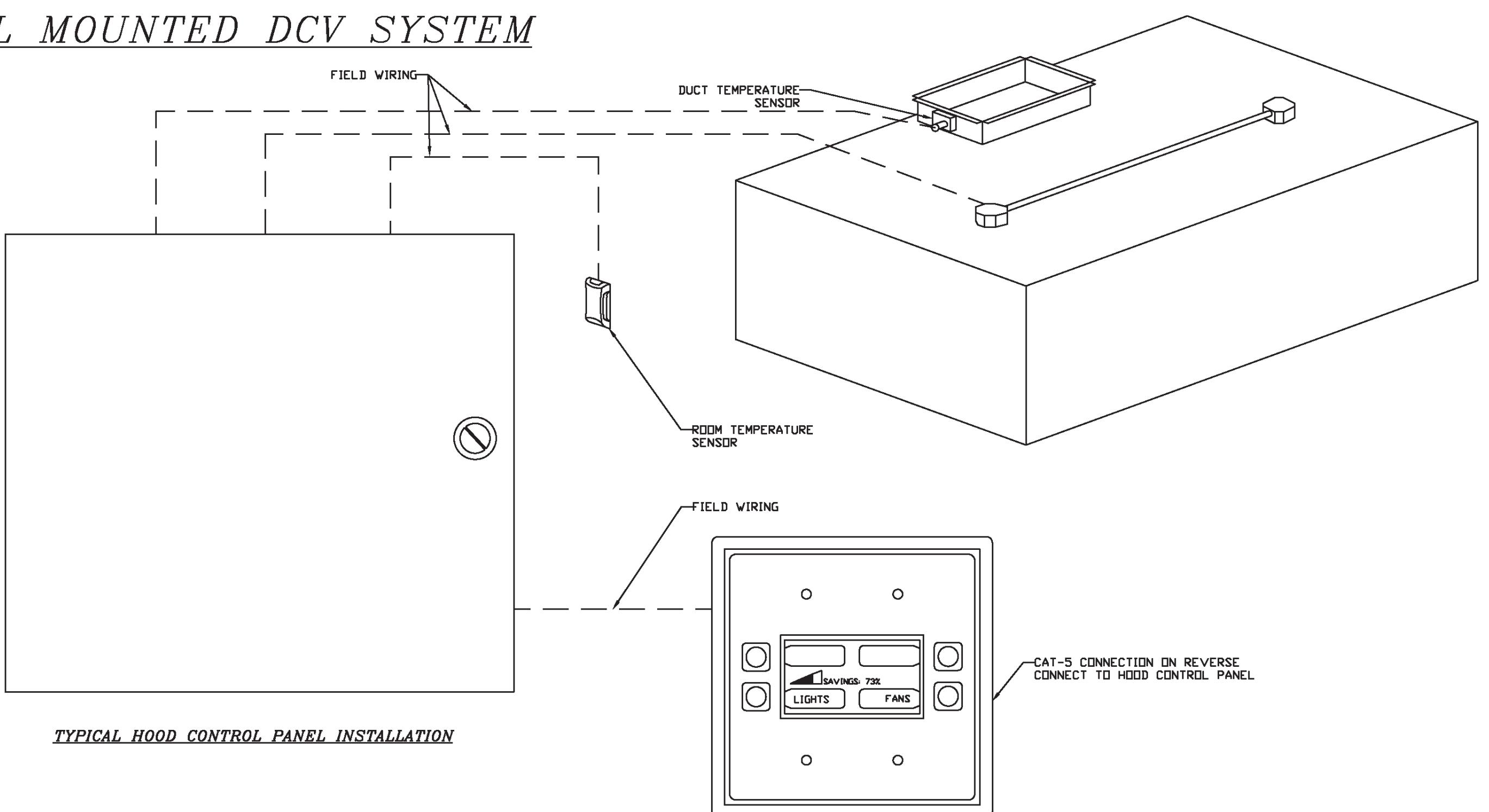
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NOTES: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 80" x 20".

WATER SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 0°F, TEMP. RISE = 80°F.
 BTUs CALCULATED OFF ACTUAL AIR DENSITY
 OUTPUT BTUs AT ALTITUDE OF 0.0 ft. = 268844
 INPUT BTUs AT ALTITUDE OF 5037 ft. = 268844
 OUTPUT BTUs AT ALTITUDE OF 5037 ft. = 223383
 INPUT BTUs AT ALTITUDE OF 5037 ft. = 242807

WALL MOUNTED DCV SYSTEM



TYPICAL HOOD CONTROL PANEL INSTALLATION

TYPICAL INTERFACE CONTROL

HOOD CONTROL PANEL - DEMAND CONTROL VENTILATION (DCV)

Written Specifications: The hood control panel with demand control ventilation automatically modulates fans based on cooking load. Modulation allows for energy savings compared to fans running on high speed during cooking operation.

Listings: Models Electrical Control Panel are ETL Listed under file number 10175459ICOL-001 and complies with UL508A Standards and CAN/CSA C22.2, No. 14-05 Standards.

ECPM03 Circuit Board is ETL Listed under file number 100901773BOX-001 and complies with UL 61010-1 Standards and CAN/CSA C22.2, No. 61010-1 Standards.

Sequence of Operations: The hood control panel interlocks the exhaust fan with makeup air unit.

The hood control panel is capable of operating in one or more of the following states at any given time.

Automatic: The DCV hood control package is designed to thermostatically activate the exhaust fans and make-up air for an exhaust hood whenever elevated temperatures are sensed in the exhaust system. This option will meet the requirements of IMC 507.1 and IMC 508.1 by providing a thermostat(s) mounted in the duct or hood riser to sense increased exhaust temperatures.

Once the duct temperature reaches the activation point, the exhaust fans and MAU will be activated. The controls also provide hysteresis to prevent cycling of the fans after the cooking appliances have been turned off and the heat in the exhaust system is reduced. The hysteresis is factory set 2 degrees and will keep the exhaust running until the temperature falls 2 degrees below the activation set point. A hysteresis timer also exists to keep the fans running for at least 30 min after being activated by the temperature rise.

The panel is factory configured to shut down supply fans, turn on the exhaust fans and turn off the hood lights in a fire condition.

The DCV turns down to 20-25% of total exhaust in prep mode. The system is capable of turning down to 0% when operating automatically if it does not sense a need for hood operation. The DCV will modulate the fans it is controlling based on demand and the low speed and high speed settings are fully adjustable based on demand.

In the event of a fire, there are two forms of activation. The mechanical remote pull may be activated or the mechanical detection link in the hood may melt. The Ansul Automan takes this mechanical activation and converts it to an electric notification signal via the microswitch and building-initiating switch. In either event, the DCV will be electrically notified via the Ansul Automan. The DCV will then turn ON the exhaust fan, turn off the make-up air unit and turn off the hood lights. The Ansul Automan will close the mechanical gas valve to close the gas line or if an electric gas valve is used, the hood control panel will send a signal to the shunted portion of the breaker panel to remove power from the cooking appliances. The building-initiating switch can be used to notify the building alarm system.

Manual: The system operates based on human input from an HMI.

Schedule: A weekly schedule can be set to run fans for a specified period throughout the day. There are three occupied times per day to allow for the user to set up a time that is suitable to their needs. Any time that is within the defined occupied time, the system will run suitable to their needs. Any time that is within the defined occupied time, the system will run at modulation mode and follow the fan procedure algorithm based on temperature during this time. During unoccupied time, the system will have an extra offset to prevent unintended activation of the system during a time where the system is not being occupied.

Other: The system operates based on the input from an external source (DDC, BMS or hard-wired interlock).

PROJECT NO.	DRAWN J.M.	03/27/20
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JOB NUMBER: 20-040		

KITCHEN MECHANICAL EQUIPMENT SCHEDULES AND DETAILS

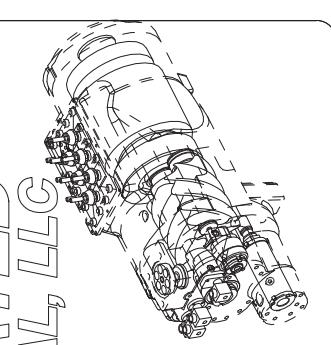
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PROJECT NO.	DRAWN J.M.	03/27/20
REVISIONS	CHECKED GNG	
JOB NUMBER: 20-040		

Construction Documents

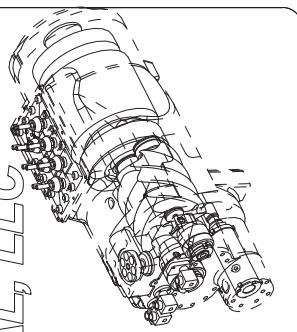


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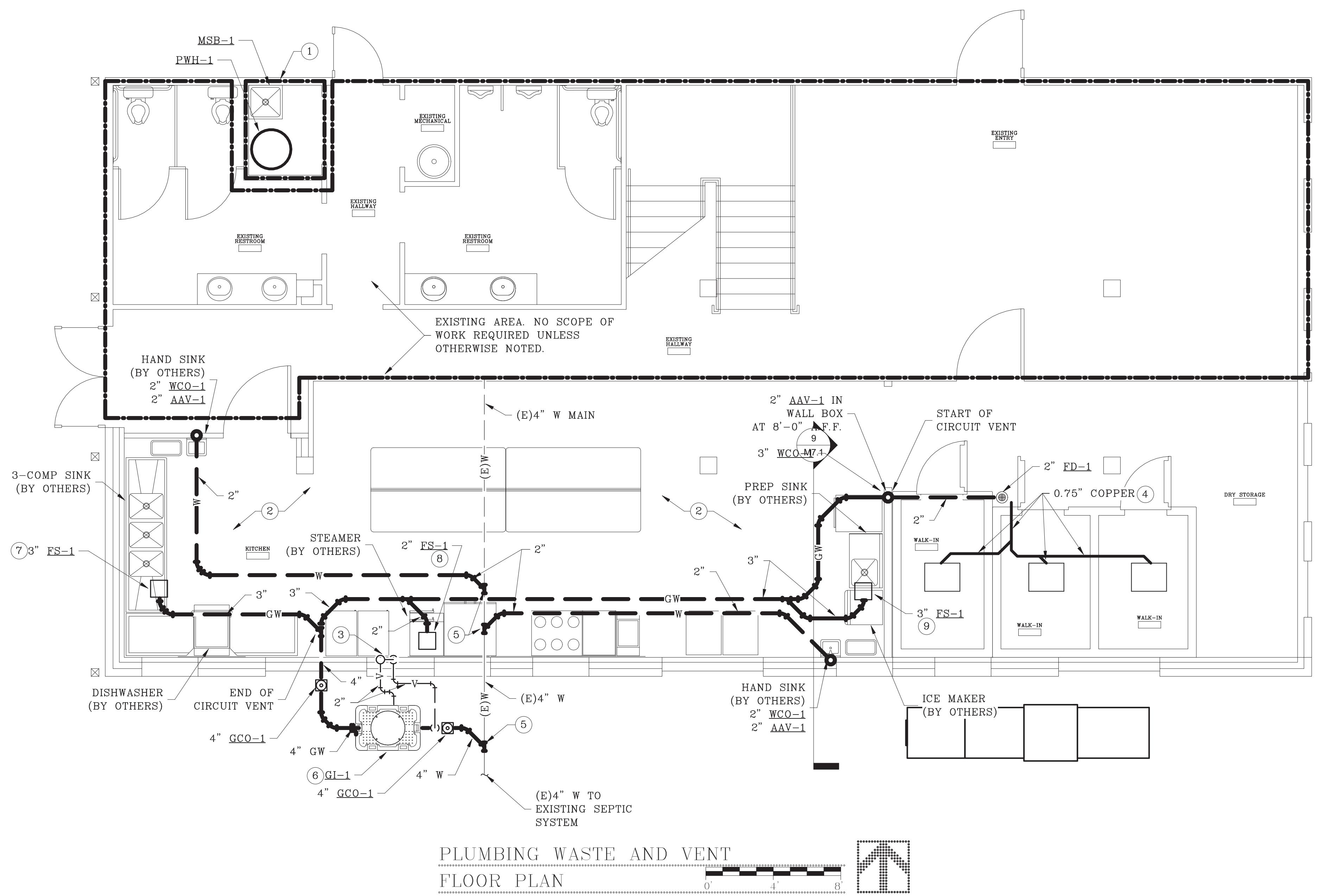
AR 2020



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FLAG NOTES:

- ① REFER TO JANITOR CLOSET WASTE AND VENT ISOMETRIC ON SHEET P6.1 FOR WASTE AND VENT REQUIREMENTS IN THIS AREA.
- ② REFER TO KITCHEN WASTE AND VENT ISOMETRIC ON SHEET P6.1 FOR WASTE AND VENT WORK REQUIRED IN THE KITCHEN.
- ③ (2) 2" VENTS FROM GI-1 BELOW GRADE INTO BUILDING. COMBINE (2) 2" VENTS INTO SINGLE 2" VENT ABOVE SLAB, AND CONTINUE UP THROUGH ROOF WITHIN WARM SIDE CAVITY OF EXTERIOR WALL. TERMINATE TO 3" VTR.
- ④ PC TO ROUTE AND COMBINE 0.75" COPPER CONDENSATE DRAIN LINES FROM WALK-IN EVAPORATORS DOWN TO THIS FLOOR DRAIN WITH 2" AIR GAP. COORDINATE WITH GC TO PROVIDE HEAT TRACE AT ALL PIPING INSTALLED WITHIN A WALK-IN FREEZER.
- ⑤ CONNECT TO EXISTING 4" WASTE MAIN IN THIS APPROXIMATE AREA. CONTRACTOR TO FIELD VERIFY EXACT LOCATION AND INVERT REQUIREMENTS.
- ⑥ GREASE INTERCEPTOR INSTALLED WITHIN LANDSCAPING IN THIS APPROXIMATE AREA. COORDINATE EXACT INSTALLATION LOCATION WITH GC.
- ⑦ ROUTE INDIRECT DRAINAGE FROM 3-COMP SINK AND DISHWASHER TO THIS FLOOR SINK.
- ⑧ ROUTE INDIRECT DRAINAGE FROM STEAMER TO THIS FLOOR SINK
- ⑨ ROUTE INDIRECT DRAINAGE FROM PREP SINK AND ICE MAKER TO THIS FLOOR SINK.



PLUMBING WASTE AND VENT PLAN

Brookside Gardens

Barn Remodel

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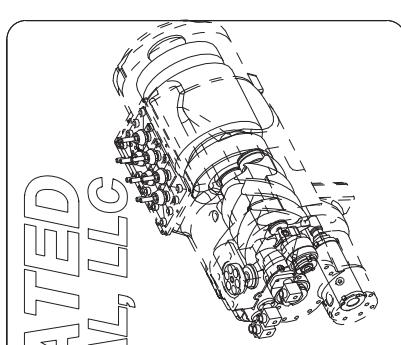
PROJECT NO.	DRAWN	JKM	03/25/20
	CHECKED	GMG	
REVISIONS			
JOB NUMBER: 20-040			

GAS METER SYSTEM NOTES:

- THE EXISTING GAS METER IS LOCATED ON THE NORTH SIDE OF THE MAIN ENTRY BUILDING AT THE NORTH SIDE OF THE PROPERTY. THE EXACT GAS DISTRIBUTION SYSTEM IS UNKNOWN TO THIS ENGINEER AND IS BURIED THROUGHOUT THE PROPERTY. THE TOTAL EXISTING GAS METER LOAD IS ALSO UNKNOWN TO THIS ENGINEER.
- IMMEDIATELY UPON AWARD OF CONTRACT, CONTRACTOR SHALL COORDINATE WITH LOCAL GAS UTILITY SERVICE COMPANY TO INCREASE METER DELIVERY PRESSURE TO 2 P.S.I.
- THE CONTRACTOR SHALL BE REQUIRED TO IDENTIFY AND REGULATE 2 P.S.I. GAS SUPPLY PRESSURE DOWN TO 7" W.C. AT ALL EXISTING PIECES OF GAS FIRED EQUIPMENT, INCLUDING SYSTEMS NOT INCLUDED ON THESE PLANS. CONTRACTOR OPTION TO REGULATE GAS PRESSURE OF MAINS THAT BRANCH FROM THE METER AND DO NOT SERVE THIS KITCHEN BUILDING AT THE METER, IN LIEU OF REGULATING AT INDIVIDUAL PIECES OF EQUIPMENT.
- THE CONTRACTOR SHALL COORDINATE THE INCREASED GAS LOAD DEMAND OF THIS PROJECT SCOPE WITH THE GAS UTILITY COMPANY. REFER TO GAS METER LOAD SCHEDULE ON SHEET P6.1 FOR MORE INFORMATION.
- THE GAS PIPING SYSTEM IS SIZED AND DESIGNED USING THE EQUATION 4-1 AND 4-2 OF THE 2018 IFGC, NOT THE TABLES. REFER TO GAS METER LOAD SCHEDULE ON SHEET P6.1 FOR VARIABLES USED IN THE CALCULATIONS.
- THE FOLLOWING GAS PRESSURE REGULATORS ARE PROVIDED FOR SIZING COMPARISON ONLY, AND SHALL BE SIZED AND SELECTED BY THE CONTRACTOR.
GAS PRESSURE REGULATOR — MAXITROL 325-3L (1/2") — 140 MBH MAXIMUM LARGEST APPLIANCE, 250 MBH MAXIMUM TOTAL CAPACITY, 2 PSI INLET, 10" WC OUTLET, WITH 12A09 VENT LIMITER.
GAS PRESSURE REGULATOR — MAXITROL 325-5AL (3/4") — 425 MBH MAXIMUM LARGEST APPLIANCE, 600 MBH MAXIMUM TOTAL CAPACITY, 2 PSI INLET, 10" WC OUTLET, WITH 12A39 VENT LIMITER.
GAS PRESSURE REGULATOR — MAXITROL 325-5AL (1") — 425 MBH MAXIMUM LARGEST APPLIANCE, 600 MBH MAXIMUM TOTAL CAPACITY, 2 PSI INLET, 10" WC OUTLET, WITH VENT LIMITER WHEN INSTALLED INDOORS.

FLAG NOTES:

- THESE AREAS ARE EXISTING AND NOT IN SCOPE UNLESS OTHERWISE NOTED.
- REFER TO POTABLE WATER HEATER INSTALLATION DETAIL ON SHEET P6.1 FOR MORE INFORMATION ON SCOPE IN THIS ROOM.
- CONNECT NEW 1" CW TO EXISTING 1" CW WITHIN THIS ENTRY ROOM, OR MECHANICAL ROOM LOCATED DIRECTLY ABOVE THIS SPACE. CONNECTION SHALL BE MADE DOWNSTREAM OF EXISTING BUILDING SHUT-OFF VALVE. CONTINUE NEW PIPE MAIN TO NEW MECHANICAL CLOSET AS INDICATED.
- POTABLE WATER PIPING ROUTED DOWN ALONG EXTERIOR WALLS SHALL BE INSTALLED FULLY ON THE WARM SIDE OF THE BUILDING THERMAL ENVELOPE. DO NOT INSTALL PIPING WITHIN THE INSULATED EXTERIOR WALL.
- 0.5" CW DOWN. BRANCH 0.5" CW TO HAND SINK, AND CONTINUE 0.5" DOWN TO 6" ABOVE GRADE AND ROUTE SUPPLY PIPING THROUGH WALL TO MAU-1 (BY OTHERS) EVAP COOLING SECTION. REFER TO GRADE-MOUNTED EVAP FILL AND DRAIN INSTALLATION KIT DETAIL ON SHEET P6.1
- CONNECT CW TO OWNER PROVIDED EQUIPMENT WITH BACKFLOW PREVENTION AS OUTLINED ON SHEET MPO.1.
- CONNECT NEW 1.25" GAS TO EXISTING 1.25" GAS RISER IN THIS LOCATION, EXTERIOR TO BUILDING. ROUTE PIPE INTO BUILDING AND CONTINUE ROUTING AS INDICATED. EXPOSED GAS PIPING SHALL BE PAINTED TO MATCH BUILDING EXTERIOR. (MBH VALUE INDICATED IS TOTAL ASSUMED VALUE FOR THIS BUILDING, INCLUDING EXISTING EQUIPMENT)
- CONNECT TO GAS FIRED EQUIPMENT WITH GAS RATED BALL VALVE, PRV-1 UNION AND FULL SIZED 6" DIRT LEG.
- PC TO ROUTE 3"Ø PVC FLUE AND CA UP THROUGH VOID SPACE AT EXTERIOR WALL ON SECOND FLOOR AND TERMINATE UP THROUGH ROOF IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- PROVIDE AND INSTALL ACCESSIBLE ISOLATION BALL VALVE AT THE START OF HOT WATER RECIRCULATION SYSTEM WHERE SHOWN.
- LOCATION OF PP-1 MOTION START SENSOR.



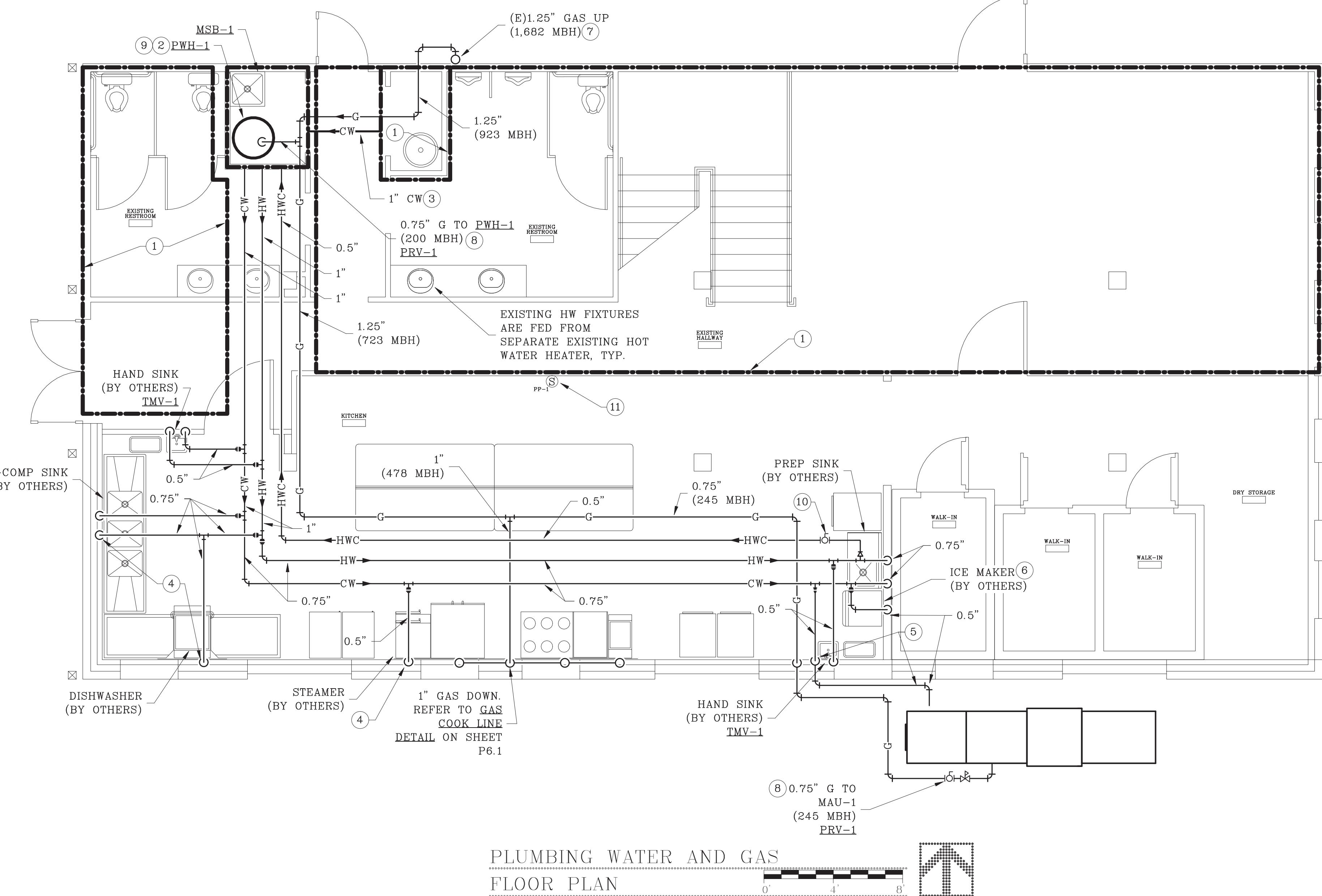
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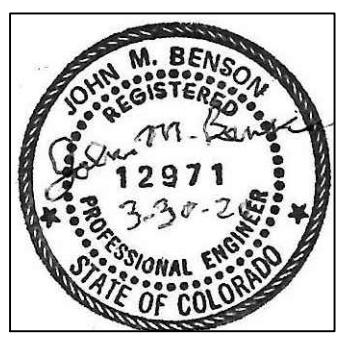
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ELECTRICAL LEGEND



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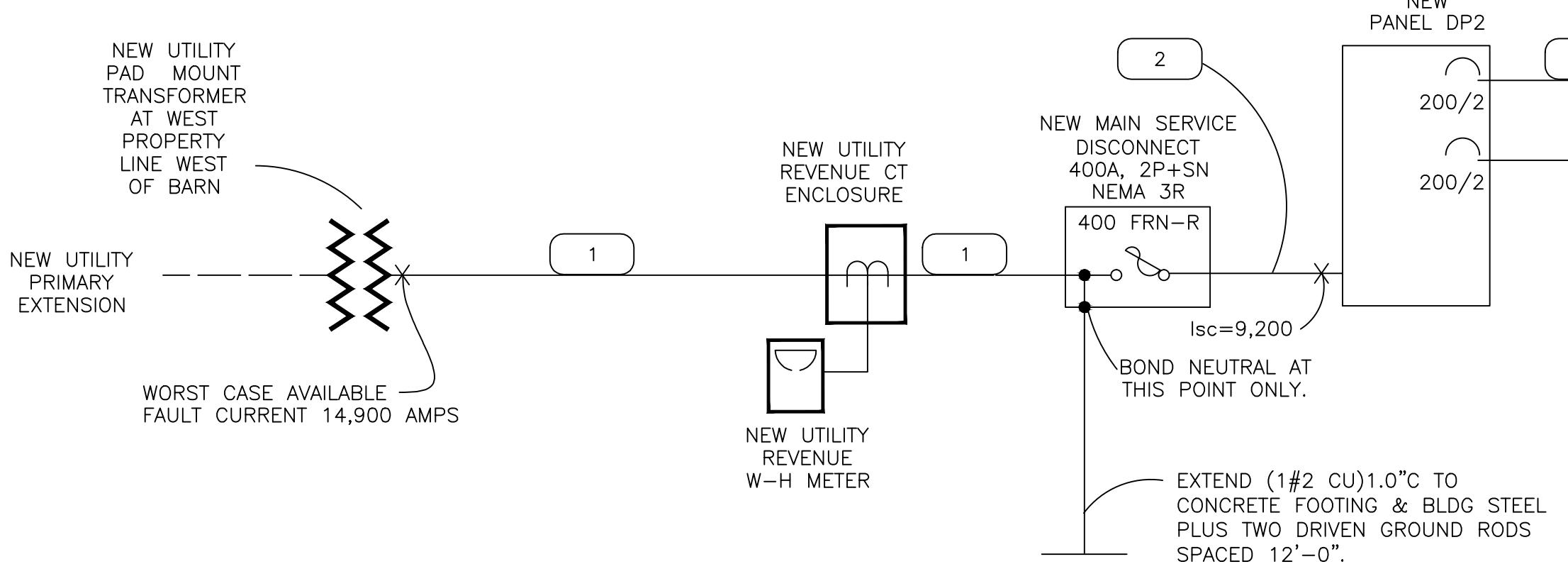
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DEMAND LOAD CALCULATIONS

ESTIMATED EXISTING LOAD ON MAIN PANEL BE = 42,880 VA
NEW PANEL BKM
CONNECTED LOAD FROM PANEL SCHEDULE = 48,120 VA
LESS 35% OF KITCHEN LOADS AS ALLOWED BY NEC 220.56 ON LOADS 5,10,12,12.5,13, 16,16.5
28,132 VA X 0.35 DF = - 9,846 VA
PLUS 25% OF LIGHTING LOAD = 1,020 X0.25 DF + 255 VA
PLUS 25% LARGEST MOTOR (MUA-1) = 1,020X0.25 + 573 VA
TOTAL DEMAND LOAD ON PANEL BK = 39,102 VA (163 A)
TOTAL DEMAND ON NEW SERVICE = 42,880 + 39,102 = 81,982 VA (342 A)

FEEDER KEY

- 1 TWO PARALLEL (3#4/0 XHHW AL)2.0°C
- 2 TWO PARALLEL (3#4/0 XHHW AL & 1#2 CU GRD)2.0°C
- 3 (3#4/0 XHHW AL & 1#6 CU GRD)2.0°C



ELECTRICAL ONE-LINE DIAGRAM

SERVICE: 120/240 VOLT, 1-PHASE, 3-WIRE

PANEL SCHEDULE - PANEL BK

CIRCUIT NUMBER	BREAKER TRIP	LOAD DESCRIPTION	LOAD V-A	PHASE	LOAD V-A	LOAD DESCRIPTION	BREAKER TRIP	CIRCUIT NUMBER
1	20/1	LIGHTING-KITCHEN, STORAGE	550	A	750	RECEPT - KITCH. C.O.+EF-1	20/1	2
3	20/1	LIGHTING - HOODS, WALK-INS	470	B	600	RECEPT - KITCHEN C.O.	20/1	4
5	20/1	SPARE	.	A	400	RECEPT - STORAGE C.O.	20/1	6
7	20/1	CONVECTION OVEN	720	B	1500	DOOR HEAT-WALK-IN FREEZE	20/1	8
9	40/2	COOK AND HOLD UNIT	3460	A	3200	DISHWASHER	30/1	10
11	.		3460	B	1680	COOK AND HOLD UNIT	20/1	12
13	30/1	FOOD WARMER	1990	A	360	FREE-STANDING REFRIGERATOR	15/1	14
15	30/1	FOOD WARMER	2160	B	900	ICE MACHINE	20/1	16
17	20/2	MAKE-UP AIR UNIT MUA-1	1350	A	1800	WALK-IN REFRIGERATOR	20/1	18
19	.		1350	B	2640	WALK-IN FREEZER	30/1	20
21	15/2	DISHWASHER HOOD KEF-3	430	A	1800	WALK-IN COOLER	20/1	22
23	.		430	B	1500	FREEZER DOOR HEAT	20/1	24
25	15/2	STEAMER EXHAUST KEF-2	590	A	6120	STEAMER	70/2	26
27	.		590	B	6120			28
29	20/2	TYPE 1 HOOD KEF-1	990	A		SPARE	20/1	30
31	.		990	B		SPARE	20/1	32
33	.		.	A			.	34
35	.		.	B			.	36
37	.		.	A			.	38
39	.		.	B			.	40

TYPE	LOAD CENTER	CONNECTED LOAD	A	23,990 VA	MAIN	---
BREAKER MFG.	PLUG-IN		B	24,130 VA	MLO	200
VOLT, PHASE	120/240V, 1 PH				BUS	200
WIRE	3				MOUNTING	FLUSH
			TOTAL	35,880 VA		

A-1 BRANCH CIRCUIT HOMERUN. DESTINATION SHOWN. (CROSSHATCHES; SHORT=HOT; LONG=NEUTRAL; OPPOSITE=GND)

SINGLE-POLE SWITCH

3 - THREE-WAY SWITCH

2 - TWO-POLE SWITCH

WP - WEATHERPROOF

a - SW CONTROLS FXTRS W/SAME DES

a - SW CONTROLS FXTRS W/SAME DES

OS - EQUIP WITH OCCUPANCY SENSOR

GFCI - GROUND FAULT CIRCUIT INTERRUPTING

WP - WEATHERPROOF, WR-RATED DEVICE

42" - HEIGHT ABOVE FINISHED FLOOR (GRADE)

AC - ABOVE COUNTER

UC - UNDER COUNTER

TR - TAMPER RESISTANT PER NEC 406.12(C)

EWC - ELECTRIC WATER COOLER

DOUBLE DUPLEX RECEPTACLE

SPECIAL PURPOSE OUTLET

JUNCTION BOX

CONTROL STATION FOR OHD - INTERIOR

THERMOSTAT - LINE VOLTAGE RATED

BRANCH CIRCUIT PANELBOARD- NEMA 1 ENCLOSURE
UNLESS OTHERWISE NOTED, REFER TO PANEL
SCHEDULE FOR SIZE AND SPECIFICATION

EQUIPMENT MOTOR

TRANSFORMER, POLE OR PAD MOUNTED

STO - MANUAL MOTOR STARTER WITH THERMAL
OVERLOAD PROTECTION.

DISCONNECT SWITCH

FRACTIONAL HORSEPOWER MOTOR

LOUVER-DAMPER MOTORIZED - INTERLOCK WITH FAN

RECESSED LED LIGHT FIXTURE
A = FIXTURE TYPE (SEE SCHEDULE)
a = FIXTURE CONTROLLED BY SWITCH WITH SAME
DESIGNATION (TYPICAL)

SURFACE OR PENDANT MOUNTED LIGHT FIXTURE

HIGH BAY LED LUMINAIRE

WALL MOUNTED LIGHT FIXTURE

RECESSED LIGHT FIXTURE

SURFACE MOUNTED LIGHT FIXTURE

EXIT FIXTURE - PROVIDE ARROWS AS INDICATED

EMERGENCY LIGHT FIXTURE

EF-1 MECHANICAL EQUIPMENT DESIGNATION (SEE SCHEDULE)

EMERGENCY REMOTE LIGHTING HEAD

XX POWER CABLE DESIGNATION

1 ELECTRICAL FLAG NOTE

AFF	ABOVE FINISHED FLOOR	MCC	MOTOR CONTROL CENTER
AFG	ABOVE FINISHED GRADE	NL	DENOTES CONNECTION AS NIGHT LIGHT
BFF	BELOW FINISHED FLOOR	EWC	ELECTRIC WATER COOLER
BFG	BELOW FINISHED GRADE	N	NEUTRAL
CKT	CIRCUIT	PC	PHOTOCELL
CT	CURRENT TRANSFORMER	OHD	OVERHEAD DOOR OPERATOR
G	GROUND	PVC	POLYVINYL CHLORIDE
GC	GROUNDING CONDUCTOR	SSRV	SOLID STATE REDUCED VOLT.
GRD	GROUNDING CONDUCTOR	UG	UNDERGROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPT	VFD	VARIABLE FREQUENCY DRIVE
GRC	GALVANIZED RIGID CONDUIT	XFMR	TRANSFORMER
HP	HORSEPOWER		
IC	INTERRUPTING CAPACITY		
C	CONDUIT		
AC	ABOVE COUNTER		
UC	UNDER COUNTER		

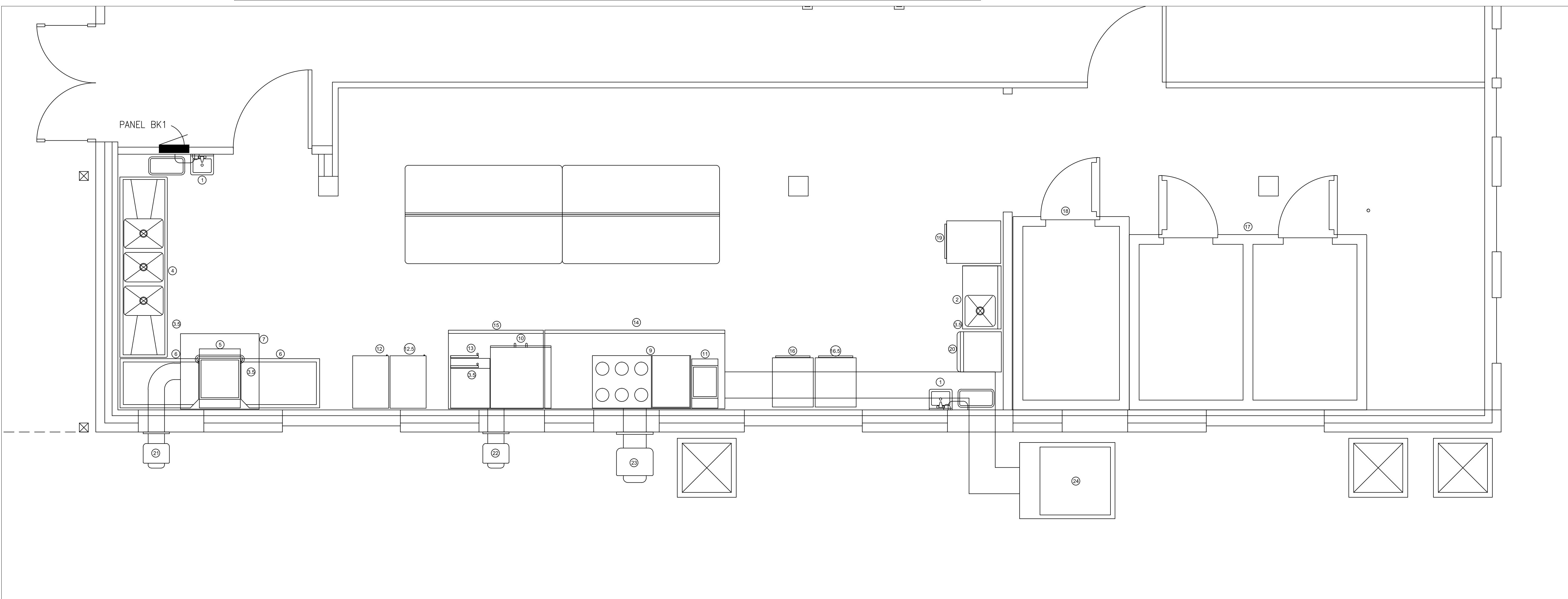
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KITCHEN EQUIPMENT SCHEDULE

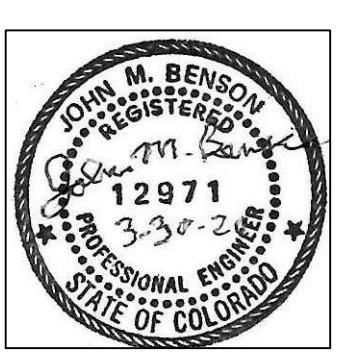
ITEM NUM.	ITEM DESCRIPTION	EQUIP. SIZE	MANUFACTURER	MODEL NUM.	QUANT.	MOUNTING	POWER	CIRCUIT BREAKER
5	DISH WASHER	24"W x 36" D	ALREADY OWN. BRAND- CLEAN FORCE	AF 3DS	1	FLOOR	120v-20amp	30/2
6	DISHWASHER OUT-FEED TABLES	48"W x 30"D	ALREADY OWN	NONE	2	FLOOR	--	
7	DISHWASHER CONDENSATE HOOD	48"W x 46"D	ALREADY OWN	-	1	FLOOR		
	COOKING							
9	6 BURNER COOKTOP WITH 24" FLAT TOP	60"W x 32"D	VULCAN	SX 60F-6B24 GN	1	FLOOR	--	
10	DOUBLE STACK CONVECTION OVEN	38"W x 37"D	BLODGETT	SHO 100 -G	1	FLOOR	120v-6amp	20/1
11	FRYER	16"W x 30"D	SUPERIOR	LG400-5	1	FLOOR	--	
12	COOK AND HOLD UNIT	22"W x 32"D	ALREADY OWN. BRAND- ALTO SHAAM	1000 THTT	1	FLOOR	240v-28.8amp	40/2
12.5	COOK AND HOLD UNIT	22"W x 32"D	ALREADY OWN. BRAND- ALTO SHAAM	VERIFY	1	FLOOR	120v-14amp	20/1
13	STEAMER	24"W x 32"D	ALREADY OWN. BRAND- MARKET FORGE	VERIFY	1	FLOOR	240v-51.6amp	70/2
14	TYPE 1 HOOD	110"W x 48"D	ALREADY OWN.	VERIFY	1		VERIFY	
15	CONDENSATE HOOD	58"W x 48"D	ALREADY OWN.	VERIFY	1		VERIFY	
16	FOOD WARMER	25"W x 30"D	ALREADY OWN. BRAND- VULCAN	VERIFY	1		120v-16.6amp	30/1
16.5	FOOD WARMER	25"W x 30"D	ALREADY OWN. BRAND- HOT FOOD BOX INC	VERIFY	1		120v-18amp	30/1
	REFRIGERATION / FREEZERS							
17	WALK-IN COOLER / FREEZER	12'-1" W x 8'-11"D	ALREADY OWN NORLAKE	VERIFY	1	FLOOR	FRIDGE 110v-15 amp FREEZER 120v-22 amp	20/1 20/1
18	WALK-IN COOLER	5'-11" W x 9'-10"D	ALREADY OWN CCI	VERIFY	1	FLOOR	120v-15 amp	20/1
19	FREE STANDING REFRIGERATOR	26"W x 33"D	ALREADY OWN	VERIFY	1	FLOOR	120v-3 amp	30/1
20	ICE MACHINE	24.5"W x 27"D	ICE O MATIC	16021280010451	1	FLOOR	120v-7.5 amp	20/1
	EXHAUST / MAKE-UP AIR							
21	DISHWASHER EXHAUST AIR, HVAC KEF-3				1	WALL	240V, 3.6 FLA	15/2
22	STEAMER EXHAUST AIR, HVAC KEF-2				1	WALL	240V, 4.9 FLA	15/2
23	TYPE 1 HOOD EXHAUST AIR, HVAC KEF-1				1	WALL	240V, 8.0 FLA	20/2
24	MAKE-UP AIR UNIT, HVAC MUA-1				1	GROUND	240V, 11.2 MCA	20/2
	JANITOR EXHAUST FAN, HVAC EF-1		COOK	GC-146	1	CEILING	120v-1.5 amp	15/1

POWER PLAN NOTES

1. PROVIDE BRANCH CIRCUIT WIRING TO LOADS AS DEFINED ON THE EQUIPMENT SCHEDULE AND SHOWN IN PLAN. VERIFY ALL CIRCUIT PARAMETERS PRIOR TO START OF ROUGH-IN.
2. COORDINATE LOCATIONS OF ALL NON-EQUIPMENT RELATED CONVENIENCE OUTLETS WITH THE OWNER PRIOR TO START OF CONSTRUCTION.
3. PROVIDE INTEGRAL CLASS A GROUND FAULT CIRCUIT INTERRUPTION (GFCI) ON ALL 120 VOLT, 15 OR 20 AMPERE RECEPTACLES THAT ARE LOCATED WITHIN 6 FEET OF ANY WALL OR FLOOR MOUNT SINK OR OTHER OPEN WATER EQUIPMENT.
4. PROVIDE A 20 AMPERE, 120 VOLT WP GFCI SERVICE OUTLET NEAR THE MAKE-UP AIR UNIT AND CONNECT TO A CONVENIENCE OUTLET CIRCUIT.
5. PROVIDE RECEPTACLE AND MATCHING PLUG OR SAFETY DISCONNECT SWITCH AT EACH EQUIPMENT LOCATION. COORDINATE LOCATION AND CONFIGURATION PRIOR TO START OF CONSTRUCTION.
6. ALL CONDUITS ARE BE CONCEALED IN CEILING OR WALL CONSTRUCTION IN THE KITCHEN AND STORAGE AREAS.



POWER PLAN
SCALE: 3/8" = 1'



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PROJECT NO.	DRAWN	DOED	2-17-28
REVISIONS	DOED	CHECKED	IF

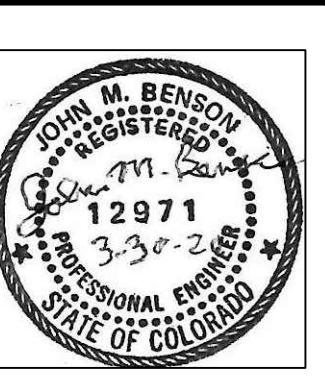
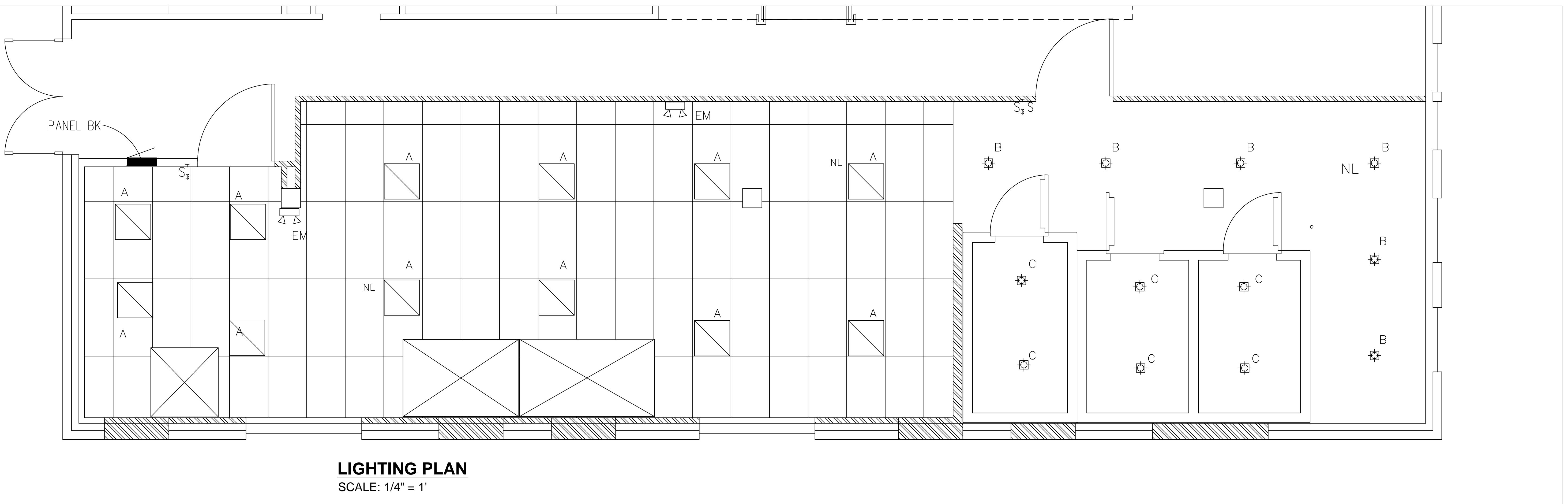
Construction Drawings
SHEET E2 OF 3

LIGHTING FIXTURE SCHEDULE

TYPE A	CEILING RECESSED 2'X2' LED LUMINAIRE, WITH UNIVERSAL DRIVER. 4000K COLOR AND MINIMUM 2,500 LUMENS RATED OUTPUT IN A 0.125A" THICK FLUSH FROSTED ACRYLIC LENS SET IN A FLUSH WHITE ALUMINUM DOOR. TROFFER SHALL BE TRIPLE GASKETED (DOOR-TO-LENS, DOOR TO HOUSING, AND HOUSING-TO-GRID). FIXTURE SHALL BE HUBBELL LLT 22-40 ML G-FA A12F-E U G3.
TYPE B	RECESSED 4000K LED RECESSED DOWNLIGHT FIXTURE WITH SEMI-DIFFUSE CLEAR ALZAK REFLECTOR AND 1500 LUMEN MODULE AND WHITE PAINTED TRIM. EQUIP WITH BAR HANGERS FOR INSTALLATION IN JOIST CEILING. EQUAL TO PRESCOLITE LF6SL-6LFSL 15L WT-B6.
TYPE C	SURFACE CEILING MOUNTED CEILING VAPORTIGHT WET LOCATION LUMINAIRE WITH 4000K LED SOURCE GLASS LENS ALUMINUM HOUSING/GUARD, EQUAL TO HUBBELL VBGL-FG.
TYPE EM	EMERGENCY BATTERY STANDBY HIGH OUTPUT EGRESS LUMINAIRE WITH TWO 2.0 WATT LED HEADS. MOUNT ON WALL AT CEILING, EXCEPT IN HIGH CEILING AREAS AT 10'-6" AFF. EQUAL TO DUAL-LITE EV4.

LIGHTING PLAN NOTES

1. ALL LIGHTING IN THE KITCHEN AND STORAGE CEILING AREAS SHALL BE CONNECTED TO ONE CIRCUIT (BK-1). THE LIGHTING EQUIPMENT FOR THE HOOD(S) AND WALK-IN EQUIPMENT LIGHTING SHALL BE CONNECTED TO A SEPARATE CIRCUIT (BK-3).
2. TYPE C FIXTURES IN COOLER AND FREEZER ARE SPECIFIED IN LIEU OF LIGHTING EQUIPMENT THAT MAY BE PROVIDED WITH THE EQUIPMENT PACKAGE.
3. SWITCH LIGHTING AT EACH DOOR INTO KITCHEN AREA WITH THREE WAY SWITCH, AS INDICATED. SINGLE POLE SWITCH AT THE EAST DOOR SHALL BE FOR THE LIGHTING IN THE STORAGE CEILING AREAS. LIGHTING CONTROL FOR THE COOLER AND FREEZER UNITS WILL BE SWITCH ON EQUIPMENT AND PART OF THE EQUIPMENT PACKAGE.
4. CONNECT THE EM STANDBY LIGHTING UNITS TO THE NEAREST "NL" FIXTURE FOR OPERATION WITH THE NIGHT LIGHTING EQUIPMENT.



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PROJECT NO.	DRAWN	Do/d	2-17-28
	CHECKED	If	
REVISIONS		Do/d	
Construction Drawings			
SHEET E3 OF 4			

